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24 January 1986

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AGRICULTURE

INTERNATIONAL AFFAIRS

CURRENT 5-YEAR PLAN PROGRESS REPORT FOR CEMA AGRICULTURE

Moscow/East Berlin INTERNATIONALE ZEITSCHRIFT DER LANDWIRTSCHAFT in German No 6, 1985 pp 480-485

[Article by Ngok Bin and Petr Ivashov, agriculture department, CEMA secretariat: "Agricultural Development in the CEMA Countries During the Current Five-Year Plan"]

[Text] The communist and workers parties in the CEMA countries look at stably supplying the population with foods as an exceptionally important economic and sociopolitical task. Its successful solution is sought by each country's resolutely implementing its agrarian policy and by the coordinated commercial and economic policy in the integration process of the countries of the socialist community. The principal goal lies in obtaining stable growth in food production and an improvement in the food supply structure for the population through using the CEMA countries' potential, the accomplishments of scientific-technical progress and the best practical experiences. That policy found its concrete expression in the preparation and adoption of specific long-term food programs and other important documents in some CEMA countries, where complex material-technical, socioeconomic and organizational measures were set down on the proportionate development of all branches in the agrar-industrial complex (AIK), especially of its central sphere, agriculture.

The fraternal countries closely coordinate the national development programs for the AIK branches with the chances arising for the implementation of these programs from the multilateral international cooperation and the specialization and integration in the agro-industrial sector within CEMA.

The 37th CEMA session in 1983 discussed and approved, in complementing the long-term target program for cooperation in agriculture and the foodstuffs industry, "complex cooperation measures for improving the supplying of the population of the CEMA countries with food." They embrace a broad number of tasks in economic and scientific-technical cooperation in the branches of AIK.

Combining the national and international efforts of the CEMA countries around the solutions for the problems that are connected with the development of AIK has positively affected the increase in food production. The agricultural working people in the CEMA countries (somewhat more than the 6 percent of agricultural workers on the world scale) greatly boosted the output of the most important farm products in recent years, relative to world production (Table 1).

Table 1: The CEMA countries' proportionate share in world output of the most important agricultural products, in percent

Products	1980	1984
Grain and leguminosae	17.8	19.4
Sugar beets	44.2	44.8
Potatoes	49.0	50.0
Milk	28.1	30.0
Wool	21.1	21.0
Eggs	20.0	20.5

Meteorologically, this Five-Year Plan (1981-1984), especially the first 2 years, was extremely unfavorable to farming in some CEMA countries. However, the states in the socialist community concentrated their efforts on solving the many topical and long-range tasks contributing to a consolidation of the material-technical base in agriculture, to expanding amelioration projects, to technical conversion in agriculture as well as to putting into practice progressive technologies, the accomplishments of science and the experiences of the best units. Against the natural forces they pitted the organized and exemplary labor of the working people in crop and livestock production and increased the farm output under tough weather conditions.

Investments to Consolidate and Develop the Material-Technical Base in Agriculture

Among the measures for solving the food problem, investments and rational use play an important role. Between 1981 and 1984 total investments, compared with 1980, rose by 22 percent in Bulgaria (not counting the allocations for reforestation), by 98 percent in Vietnam, by 11 percent in Cuba, by 71 percent in Mongolia, and by 25 percent in the CSSR. In other CEMA countries the average annual investment rate slowed down.

At the present time, the chief investment trends in agriculture lie in the reconstruction and modernization of existing capacities and in technical conversion and amelioration to increase the intensity and efficiency of crop and livestock production and improve soil fertility.

Another peculiarity of the use of investments in the current five-year plan lies in the elimination of still surviving disproportions in the development of the AIK branches and their infrastructure.

The proportionate share of investments in agriculture and the foodstuffs industry relative to total investments is 11 percent in the GDR, 22 percent in Poland, and more than one-third in Cuba. In Mongolia, circa 17 percent were annually used in this period for agricultural development and in Vietnam, 20 percent of total investments in the economy. They were used mainly for building irrigation systems, creating new land, expanding the growing of technical cultures, and setting up new state-farms. In Romania, 16 percent of all investments went to agriculture in the 1981-1984 period. They put 43 projects into operation, including irrigation systems and cattle breeding and fattening installations. Large amelioration projects were carried out.

In the Soviet Union, the proportion of investments in agricultural development came to 20 percent of the economic investment effort in the seventh Five-Year Plan,

23 percent in the eighth, 26 percent in the ninth, and 27 percent in the 10th and the 4 years of the 11th five-year plan. In its agrarian policy the CPSU pays great attention to enhancing the stability of farm production as an important prerequisite for the planned development of the entire economy. Amelioration tasks are getting primary attention there. The October 1984 plenum of the CPSU Central Committee ratified a long-term program on amelioration and the efficient use of ameliorized areas for the 12th five-year plan and the long-range time frame up to the year 2000. This program provides for more than R 50 billion of state investments for the years 1986-1990. By the year 2000 up to 32 million hectares are to be irrigated and 19 to 21 million hectares, to be dried.

For developing and reinforcing the material-technical base of agriculture in the CEMA countries is its technical equipment and conversion and, on that basis, the initiation of a complex mechanization of farm production very important.

Agriculture in the CEMA countries got new tractors and farm machinery. In 1984 there were as many as 4,191,200 tractors (not counting Romania), as compared with 3,631,000 in 1980, an increase thereby of 15 percent. Other than the larger number of tractors and other machines, there came their technical upgrading and the addition of higher-capacity modern tractors of the K-700, K-701, T-150, T-150K, MTS-80, MTS-82 and other models. Simultaneously, the CEMA countries' agriculture is being equipped with technically improved highly productive combines for the grain, potato, beet and vegetable harvest, means of transportation and strong trailers, and machine systems for livestock and feed production.

Between 1980 and 1983, the energy installation in agriculture in the CEMA countries rose from 285 to 298 hp per 100 ha of acreage, in Hungary from 192 to 211 hp, in Poland from 308 to 371, in the USSR from 270 to 307, and in the CSSR from 438 to 478 hp.

The increasing extent of technical and energy equipment in farm production makes possible mechanizing more and more production processes in crop and livestock production, whereby labor productivity is boosted. In the European CEMA countries, plowing, all the seeding, silage and hay preparation, harvesting of grain, leguminosae and oleaginous plants, organic and mineral fertilizing, and chemical herbicide, insecticide and weeding operations are fully mechanized, and so are many projects in livestock production, especially in cattle and poultry installations with an industrialized setup. In the USSR, for instance, the mechanization degree in 1983 in the milk production installations came to 99 percent, in the cattle breeding plants to 94 percent, and in pig breeding to 92 percent. All told, however, the agricultural labor productivity in the CEMA countries, in spite of the expanded degree of technical equipment, rose but slowly.

What with farm product output retreating per unit of acreage in the years 1981/82, USSR agricultural labor productivity rose only 1 percent above that of 1976-1980, yet by 11 percent in 1983/84. Between 1976 and 1980, the direct labor expenditure (Mh/dt [manhours of work per dt (1 dt = 100 kg)]) in the kolkhozes (including inter-enterprise facilities) came to 1.3 for sugar beets, 3 for potatoes,

53 for the cattle increase, 37 for that of pigs, 10 for milk, and in 1983 the appropriate proportions were 1.0; 2.6; 49; 37 and 9.

The comprehensive introduction of industrialized methods in crop and livestock production in conjunction with progressive forms of labor organization and remuneration has a great impact on higher labor productivity in the CEMA countries. According to the USSR ministry of agriculture, three-fourth of the maize in the Soviet Union, one-third of the sunflowers and more than 60 percent of the soy and sugar beets were industrially produced in 1984. In 1985, winter cultures and summer wheat were grown by means of intensive technologies on 17 million ha.

The transition to industrialized methods in farm production is being hastened greatly, and the efficiency with which they are used is being heightened. Many initiatives are simultaneously being aroused. Brigades and taskforces are assuming economic cost accounting and collective contracts and obligations that enhance the responsibility of each working person and of the entire work collective for the end product. In 1984, 40 percent of the acreage in the Soviet Union got regular taskforces that are working by collective contracts. In cattle production, 9 million cows, or 27 percent of the total, are taken care of by the assembly line system. Two-thirds of all pork is produced by conveyor belt technology in the public sector. An industrialized technology for sheep breeding is being introduced in complex mechanized breeding installations.

Also in the other CEMA countries are crop and livestock production placed on an industrialized basis. There still are branches, however, where scientific-technical progress makes but slow headway and labor expenditures are still extremely high. Thus far, for instance, the projects in vegetable and fruit growing, the growing and harvesting of some technical cultures, and certain labor processes in the livestock production branches are hardly yet mechanized. In the USSR the average of complex mechanization in cattle installations is 50 percent, in pork production installations 60 percent, and in poultry combines 67 percent.

A very important prerequisite for an intensive development of agricultural production and the increase in its efficiency is the hastening of technical-technological conversion and of fond appropriations. Because of what is specific to agricultural production, its degree of production fund allocations should not be smaller than that of industry. An analysis shows, however, that agricultural appropriations are far below the industrial ones in the CEMA countries, and this gap has remained virtually unchanged also in the years of the current five-year plan. At that, the changes made between 1980 and 1983 in the production fund structures of the state-farms and producers cooperatives in most CEMA countries, with the exception of Mongolia and the CSSR, are marked by a reduction of the proportion of machinery and equipment.

The development of scientific-technical progress in agriculture is linked with the achievements in machine building and the quality of machines and equipment furnished. Two problems exist here still, however. For one thing, approximately half of the trailer and tilling machines for efficient tractors, developed within the scope of CEMA's international machine system (IMS) are not being produced. And then, the high outlays for the technology (tractors, combines and so forth) often are not covered by higher harvest yields or labor productivity.

Resolving these technical and economic problems will have a positive impact on the fixed assets structure in agricultural production and its more efficient use.

Of all the measures for consistently intensifying agricultural production in the countries of the socialist community, the application of chemistry deserves high attention. Much has been done in recent years to expand production capacities for mineral fertilizer, chemical crop protection agents and means for microbial synthesis. In the 4 years of the current five-year plan, the production of mineral fertilizer climbed by more than 5.6 million tons. All told, in the CEMA countries in 1984, almost 44 million tons of mineral fertilizers (pure nutrients) were produced, 18 percent more than in 1980. The output grew the fastest in the USSR (25 percent), in Romania (25 percent) and in Vietnam (22 percent). Through such a production increase, the application of mineral fertilizers in the CEMA countries in these years could be raised altogether from 106 to 119 kg/ha, generally speaking, or by 12 percent.

The CEMA countries are setting greater store all the time by increasing the production and expanding the assortments of chemical plant protection agents. In 1984, the output rose by 19 percent above that of 1980 and came to 495 kilotonnes. From 1981 to 1984 the production of crop protection agents rose fast in Hungary (by 28 percent), in the USSR (21 percent), the GDR (13 percent) and the CSSR (11 percent).

In spite of that, CEMA country requirements for crop protection agents, especially herbicides, are not fully covered as yet. This calls for multilateral efforts for the further development of the 'fraternal countries' collaboration in producing chemical agents on the basis of specialization and cooperation.

The Production of Agricultural Commodities

Through constantly consolidating and perfecting the material-technical base of agriculture as the foundation for the intensification of crop and livestock production, through applying new forms of production management and progressive forms of labor organization and remuneration, and through using the results of cooperation, the CEMA countries from 1981 to 1984, in spite of tough weather conditions, achieved new successes in increasing the output of foodstuffs and agricultural raw materials. Total agricultural gross production in the CEMA countries had risen by 3 percent in 1984 over 1983 and 12 percent over 1980. Agricultural production developed faster in the 4 years of the current five-year plan in Vietnam and Mongolia (23 percent), Romania (19 percent), and Cuba (12 percent). In the USSR, gross agricultural output climbed by 11 percent, in Bulgaria, Poland and the CSSR, by 10 percent.

In these years the CEMA countries paid special attention to the development of crop production, so that the rate of development in that branch surpassed that of livestock production. This tendency can clearly be seen in Bulgaria, the GDR, Mongolia, Poland, the USSR and the CSSR. The focal point continues to be the further increasing of grain production. It may be observed that in the CEMA countries (not including the USSR) between 1981 and 1984 the average annual gross yields of grain have risen in comparison with those in the 1976-1980 period.

The increase lay between 7 percent in the CSSR and 20 percent in Vietnam and Mongolia. The weather in 1984 showed large contrasts. For Hungary, the GDR, Romania and the CSSR, 1984 brought a record in the gross output and hectare yields of grain and granular leguminosae. In Mongolia and the USSR, the complicated weather conditions had a negative effect on farm production. In spite of that the USSR managed to keep the volume of output on the 1983 level. The increase in the gross production of grain and granular leguminosae was achieved in the CEMA countries although their growing structure proportion of 58.2 percent in 1980 was reduced to 57.6 percent in 1984.

More sugar beets, potatoes and some other crops were harvested in the CEMA countries in 1984 than in 1983.

Of great importance to increased yields, in addition to the above mentioned intensification factors, is the cooperation of the CEMA countries in seed growing and its augmentation, which takes place within the scope of the "accord on multilateral international production specialization in seeds and crops." On the basis of that document, the USSR specializes in the seed growing of winter wheat, maize, pea, sunflower and hemp varieties and hybrids, the GDR, in the production and supplying of summer barley seeds, Poland, in sugar beets and winter rye, and Romania, in grapes. From this specialization the CEMA countries derive great economic benefits.

The close cooperation in crop cultivation started with an exchange of seeds and crops for cultivation purposes and now embraces regular reciprocal deliveries of seeds and crops to satisfy production requirements. In some CEMA countries varieties and hybrids of certain useful plants from other CEMA countries are grown over 50 to 70 percent of the total acreage. More than 70 Soviet varieties, e.g., are authorized in CEMA countries and are grown over more than 7 million hectare. The USSR, in turn, is growing from 4 to 5 million hectare with varieties and hybrids cultivated in other CEMA countries.

Livestock production was also further increased in the CEMA countries between 1981 and 1984. That is the outcome of effective measures for the further intensification of this branch and for strengthening its material-technical base through the reconstruction of old and the building of new installations and compounds facilitating the progressive technologies and modern forms of production organization and the application of the latest achievements of science and technology. The main concern there goes to qualitative growth factors in milk production and fattening.

In the outcome, gross livestock production in Bulgaria rose by 1.1 percent in 1984 against 1983, meat production, by 2.1 percent. The cows' average milk production in agricultural enterprises rose by 5.1 percent, the performance of laying hens, by 3.4 percent. The cattle inventory in Hungary remained unchanged. Pork dropped further. Meat production (fat stock) rose, however, by 2 percent, the milk production rose somewhat, and egg production dropped by 5 percent. Poland, after some decline in animal production (1981 to 1983), especially in pork production, recorded a gradual revival early in 1984. Meat production rose by 0.7 percent, milk production by 4 percent, and egg production by 5 percent against the year before. Remarkable successes are reported of the livestock

production in Romania. The cattle inventory increased by 4 percent over 1983, that of the pigs, by 6 percent, and the production climbed in meat, milk and other animal products. In the USSR livestock production average annual gross production rose by 6 percent in the years 1981-84, compared to the years 1976-80. In 1984 the heads of cattle grew by 1 percent over 1983, pigs declined somewhat, and sheep and goats increased by 8 percent. In the public sector the average milk yield from cows rose. As the result of it, the production of meat rose by 2 percent, that of milk and eggs, by 1 percent. In the CSSR, despite curtailing the cattle stock by 39,000 heads, or 0.7 percent, compared with 1983, and that of pigs by 327,000 animals or 5 percent, through a higher livestock performance the production of meat rose by 4 percent, of milk by 4 percent and of eggs by 4.5 percent. The average annual milk performance rose by 4.2 percent, that of the laying hens, by 4 percent, compared with the year before. The output of animal products has thus far in the current five-year plan risen all over in the CEMA countries, which is also true of the per capita output (Table 2).

The successes achieved in livestock production in the CEMA countries are due to a consistent intensification and the use of multilateral cooperation among the countries. Of great importance were reciprocal deliveries of breeding cattle, poultry and sperms of high-grade breeding bulls, which is constantly growing in scope. This form of cooperation was a sound basis for the further development of international socialist division of labor, specialization and cooperation in sharing the use of genetic stock. The CEMA countries in 1979 signed an international multilateral accord on the genetic stock for cattle, pigs and sheep. In line with the specialization generated on that basis, the GDR is the chief supplier of high-grade breeding cattle, Hungary, for pigs, the USSR, for sheep and so forth.

Between 1981 and 1984, these countries furnished other interested CEMA countries with some 400 breeding cattle, 2,830 pigs, more than 15,000 sheep and goats and, furthermore over 100,000 doses of breeding bull sperm. These breeding cattle are used with good benefit in developing cattle breeding in the import countries.

The Complex Cooperation Measures in Intensifying Agricultural Production

The CEMA countries are working on the draft plans for the chief trends in economic and social development for the years 1986 to 1990 and for the time span up to 2000. Connected with that is an analysis of results achieved, the discovery of positive and negative sides in economic development and the specification of the economic intensification tasks based on the accomplishments of scientific-technical progress. Special attention while drawing up these plans is paid to AIK, which is supposed to be planned, financed and managed as a unified entity. That comes with the search for the most efficient ways and means of management and planning, organization and remuneration for labor, which can still make more of the advantages of socialist economic management based on scientific-technical progress.

Merging, with maximum effect, the national R&D potentials into one uniform international potential of the CEMA countries, using the advantages of the international division of labor and with regard to the natural and economic specifics

in each country, is the most important task for the economic and scientific-technical cooperation in the agro-industrial sector.

In the CEMA economic summit declaration (Moscow, 1984) it is stated: "The participants in the conference rated the all-round hastening of scientific-technical progress as especially topical and agreed to work out jointly, on the basis of the national programs, a comprehensive scientific-technical progress program for 15 to 20 years as the basis for working out a coordinated policy, in some fields even a uniform scientific-technical policy, for the purpose of finding the fastest possible solution for the most important problems in science and technology through common efforts and handing on the results achieved to the interested countries on mutually advantageous terms." That affects the branches of AIK directly, especially agriculture, where production intensification is linked with the latest and most up-to-date means and methods of production. "For considerably enlarging the volume of capital invested in the soil," Lenin wrote, "new machines, new agricultural systems, new methods of animal husbandry, shipments of products and so forth have to be invented." (Footnote) (V. I. Lenin: "Works," Vol 5, p 103)

At that also are aimed the conclusions and proposals of the CPSU Central Committee conference on hastening scientific-technical progress. The conception presented at the conference for hastening the country's socioeconomic development, for the qualitative transformation of the material-technical base of the economy through introducing the accomplishments of science and technology, and for perfecting the management of the economic mechanism, was received with great interest in the CEMA countries.

Ensuring a stable development of AIK as a technical-technological, economic-organizational and socioeconomic task for solving the food problem remains the first and foremost strategic task in agrarian policy in the communist and workers parties of the CEMA countries. The courses for solving this task are written into the basic documents approved by CEMA--into the comprehensive program for further deepening and perfecting the cooperation and development of socialist economic integration, and the long-term target program for cooperation in agriculture and the foodstuffs economy.

Altogether the implementation of the cooperation measures envisaged in these documents had an essential influence on the further development of agriculture and the foodstuffs industry, farm machinery construction and other branches of AIK and its infrastructure.

In the CEMA countries, the degree of agricultural intensification has grown as did labor productivity, and the character of and respect for labor have changed.

In the resolutions of the CEMA economic summit and the conference of the central committee secretaries of the fraternal parties in Moscow, the priority trends for the development of cooperation were set down and the need of lifting them onto a higher qualitative level was pointed out. The declaration of the economic summit states: "The participants in the conference regard as a top priority task the utmost development of the AIK branches and cooperation in this sphere. The CEMA countries shall direct their efforts at increasing the production of food

through the introduction of progressive technologies, the development and perfection of the material and technological base of agriculture and the food industry, and also at increasing mutual deliveries of foodstuffs with the aim of improving the supply of food to the population and the consumption structure."

Much attention is paid in this connection to the implementation of the "comprehensive cooperation measures for improving the supplying of the CEMA countries' population with foodstuffs." They are an important element of the comprehensive organizational measures adopted at the 38th (extraordinary) CEMA session and aimed at the fulfillment of the economic summit resolutions.

The main trends of cooperation, as contained in the comprehensive program and the long-term target program of agriculture and the foodstuffs industry, retain their importance but are complemented and made more specific by the comprehensive measures. The measures give more substance and stronger impulses to the CEMA countries' multilateral economic and scientific-technical cooperation in the agro-industrial sector. In their implementation, 15 representative CEMA organs and five international economic organizations take part. The integration and cooperation in science, technology and production embraces all three spheres of the AIK in the CEMA countries. The priority goes to the cooperation that is linked with the development of those branches of AIK that furnish means of production, the products of which are needed for the material-technical base of agriculture, the food industry, the refrigeration and storage industry and others.

Expanding production while improving product quality is possible, as one knows, either by increasing the production potential and drawing in additional resources or through more efficient use of extant capacities, a faster introduction of the accomplishments of scientific-technical progress, and the application of the experiences of the best units. In any case, though, the growth of products and their value must be higher than the extra expenditures for producing them. If that principle is ignored, the price trend for agricultural products seen in recent years in the CEMA countries cannot long function as stabilizing factor for economic conditions ensuring a normal development of that branch of the economy.

One of the most important tasks in solving that problem lies in working out and applying fund and energy-saving technologies, which make production increases possible while the ecological equilibrium is preserved. Solving the problem of resources-saving technologies has become most relevant in crop and livestock production because in some CEMA countries the technological material and energy consumption grew faster than labor expenditure was reduced or crop yields or livestock performance improved.

The comprehensive cooperation measures envisage the development of resources-saving technologies for the most important products in crop and livestock production. In conjunction with progressive forms of labor organization and remuneration, these technologies will create the prerequisites for going into working with standards in computing the input/output ratio (yields, animal performance) with regard for natural conditions and the degree of the practical use made of the accomplishments of scientific-technical progress.

The comprehensive measures pay much attention to the agricultural application of chemistry. The CEMA countries are trying hard to increase their mineral fertilizer production. To do away with the deficit in phosphor fertilizer, one expects to cooperate in raising the production of highly concentrated and combined mineral fertilizers, the extracting of phosphorite deposits on the Chubsugul Lake (MPR), and the producing of production capacities for phosphor fertilizer, yellow phosphor and other phosphor products. Then there are also further measures of cooperation to satisfy the CEMA countries' needs for micronutrients.

The application of chemistry also provides for the broad application of anti-weed, anti-pest, and anti-plague agents innocuous to the environment.

Chemical application leads to an increase in labor productivity in field work. Not rarely, the introduction of industrialized technologies for growing maize, sugar beets, vegetable and some other agricultural crops is delayed because there are no herbicides.

One reason for so slow an increase in the efficient application of mineral fertilizers and chemical crop protection agents is the inadequate material-technical base for chemical application, the inadequate technical level of the machines and the equipment for the transport and application of chemical agents and for their storage.

The comprehensive measures contain tasks for deepening the cooperation in the chemical industry, for production increases and assortment broadening in mineral fertilizer and crop protection agents, and for the joint production of machines and equipment for the transport, storage and the application of those agents.

Great is the importance of the industrial branches of AIK for further boosting the production and improving the quality of foods. The decisive foundation for farm production yet are the soil, the agricultural cultivated plants and the domestic cattle; through them, with the help from solar energy, the product is created.

That is the reason why the CEMA countries' cooperation continues in breeding new varieties and hybrids of grain, granular leguminosae, vegetable, forage plants, fruit and berries that make a better use of solar energy, have valuable nutrients, are ecologically resistant and conform to the demands of modern industrialized technology.

More efficient use should also be made in livestock production of the biological potential.

The most important objective of the comprehensive measures is the extention and deepening of cooperation in further increasing grain, mainly feed grain, production. For an accelerated development of the grain economy, the comprehensive measures, in addition to breeding and growing highly productive assortments, envisage the development of new and the perfecting of established production procedures for grain and granular leguminosae, by using new high-capacity harvester-threshers. Also not yet exhausted are the opportunities to increase

grain production by perfecting the cultivation structure, such as expanding the kernel maize acreage in traditional cultivation areas. For the future, expanding the kernel maize acreage in the northern regions will also constitute a reserve for production increases. But that requires concrete results from meeting the agreement on scientific-technical cooperation in maize growing, especially early ripening and super-early hybrids, which would make possible the growing of kernel maize also in the northern regions of the RSFSR, the Ukraine, the CSSR, Poland, the GDR, Hungary, the USSR and Romania.

The comprehensive measures attach great importance to consolidating the feed base and raising the production of crop, animal and microbial protein.

Intended are not only higher grain yields, but also the cooperation in developing new technology and storage methods for feed grain, in increasing the yields of meadows and pasturages, in perfecting the canning and storage of bulk and juice, and in working out methods for cultivating, harvesting, transport and storage of alfalfa and soy and other granular leguminosae. Through successful work it will become possible to expand the acreages for these cultivated plants (today, granular leguminosae make up only 4 to 6 percent of the total of grain and granular leguminosae growing). If one considers the value of granular leguminosae for enriching feed rations with protein and essential amino acids and as nitrogen collector in the soil through binding nitrogen from the air, it becomes obvious that the opportunities inherent in these types of plants are too little used.

An important protein source will be the products of the biochemical and microbiological industry (feed yeast, lysine, vitamins and other food supplements). Their joint production is being planned.

The CEMA countries' cooperation in solving the grain and feed problem will make possible gradually elevating the intensity of livestock production, its capability and its efficiency. Cooperation with the industrial branches of AIK will also contribute to it, as they will supply livestock production with the technical means it needs, with means of transportation, installations for the drawing and long-time storage of the sperm in valuable breeding cattle, for its transport and for its use in artificial insemination.

Altogether the implementation of the comprehensive measures will help raise the intensity and efficiency of agricultural production and better supply the population with high-grade foodstuffs.

Länder Country	Insgesamt Total			Fleisch meat			Milch milk			Eier eggs			Je Kopf der Bevölkerung per capita		
	Fleisch (Schlachtmasse)		weight--in slaughtered	1980	1984 ¹	1984	1980	1984 ¹	1984	1980	1984 ¹	1984	1980	1984 ¹	1984
	Fleisch (Schlachtmasse)		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg
Bulgarien	781	849	109	3 217	3 560	113	2 403	2 672	111	88	95	108	239	286	111
Ungarn	1 066	1 025	117	2 557	2 851	111	4 335	4 239	97	145	171	117	239	267	112
DDR	1 899	1 983	105	7 297	7 694	105	5 514	5 772	105	114	110	104	436	452	106
Mongolei	227	231	102	226	233	112	21	24	114	136	125	92	138	137	101
Polen	3 141	2 900 ²	80	14 409	16 092 ²	90	8 902	7 642 ²	86	88	68 ²	77	664	640 ²	85
UdSSR	19 073	18 745	111	90 899	97 614	107	66 882	73 314	113	57	51	107	342	335	-04
CSSR	1 499	1 538	102	5 866	6 823	114	4 900	5 504	112	98	99	101	290	461	113

ECONOMY

INTERNATIONAL AFFAIRS

CEMA CIVIL AIR TRANSPORT PILOT TRAINING SCHOOL DESCRIBED

East Berlin VOLKSARMEE in German No 47 1985 (signed to press 18 Nov 85) p 10

/Article by Dmitri Zassorov: "I Got Off the Airplane During the Landing Approach"--Visit to the CEMA Pilot Training School in Ulyanovsk/

/Text/ I obtained permission for this flight from Honored Pilot of the USSR Viktor Rzhevsky, deputy director of the Joint Training Center for Flying, Engineering and Air Safety Personnel of the Civil Air Transport Companies of the CEMA Countries in Ulyanovsk. Full of curiosity, I enter the cockpit of the Tu-134. Even though I have never before touched a joystick, I am offered the copilot's seat. I feel a little funny about this, and I settle for the flight engineer's jumpseat. I find the mass of fittings in front of me and above me somewhat confusing. There are more of them here, it occurs to me, than in the control center of a power station. The flight mission states: takeoff and landing, or, in pilot vernacular, one go-around. To take off, make a turn and line up for a landing is probably about the most difficult task in aviation.

The takeoff is smooth, the turn has been made, and we are starting the final approach. The instruments clearly provide all the necessary information: altitude, speed, and other things. Suddenly pilot Aleksandr Yeshotkin reports that the landing gear will not lower. The flight engineer calmly states that he will "fix this" immediately. The aircraft gains altitude and once more prepares for final approach. This is repeated several times. The constantly repeated operational sequences are beginning to bore this non-participant and I decide to get off. I step out of the flight simulator, which the pilots use to familiarize themselves with that aircraft model, in the middle of the final approach.

This group of buildings of the center contains simulators for every type of aircraft as well as operators' consoles for ground aircraft controllers and dispatchers. In other words, all possible and impossible flight scenarios can be reproduced at the center. I find myself surrounded by highly sensitive electronics. "This center was founded in 1935 and at the time modestly called itself Advanced Flight Training Course for Civil Air Transport," says Deputy Director Valdimir Deldyushov. "Pilots of bombers and transport aircraft were trained here during the Great Patriotic

War. After the war the courses were reconverted to civil aviation. In 1981 the center became a CEMA facility. Since then experienced flight commanders, pilots, navigators and ground controllers have gone back to school here. The students do not have to pass an entrance examination, but experience, college degrees, or at least 3 years of college are prerequisites.

"Why do experienced people have to go back to school?" I ask.

"There is no other way in today's aviation," says Vlto Rzhevski. "New generation Soviet aircraft are introduced in many international airlines: the Tu-134, various modifications of the Tu-154, Il-62 and Il-86. Even experienced pilots must retrain for them. Even the second class of the Jak-42, which uses small airports required that the pilot undergo special training. There is great interest in this new aircraft. This turboprop model operates very economically and can be used for short or medium runs. At the moment we are swamped with applicants for the Tu-154M. This upgraded model uses 20 to 25 percent less fuel than its predecessor, the Tu-154 B."

"What does the specialists training consist of?"

"We are dealing here with retraining, more specifically, familiarization with the new equipment and an upgrading of flight procedures. In the beginning there are classroom sessions and the flight simulator. Then there are actual flights. But since we are dealing with experienced pilots, we do mostly without cross-country flying and use 90 percent of the time for local takeoffs and landings. But even for this the flight captains require 3 months. Copilot training takes a little longer."

During the past four and one-half years thousands of specialists from the European socialist states have been retrained here, as have others from Angola, Syria, Libya, Vietnam, Cuba, Korea and China. At the moment things are a little quieter in the center. One course has just concluded, but the replacements are already arriving--one specialist group each from Guyana and the GDR.

A few years ago I asked the director of Moscow's Little Theater, Mikhail Tsaryov, prior to his theater's guest appearances in the Mongolian People's Republic, how he planned to overcome the language barrier. His reply was brief: "Art needs no translation." Surely no one will deny that flying is an art also; but here, more than anywhere else, it is important to explain to the students the smallest details of such a complex piece of machinery as an aircraft. Thus the question of communication certainly commands attention here. Vlto Rzhevski calms my worries: "The European pilots all speak Russian. For pilots from Arab countries for example, we provide simultaneous interpretation. Our working languages are Russian, English, French, German and Spanish."

This year the Ulyanovsk center will be 50 years old. Its graduates fly on all continents today. I believe they all have fond memories of their training time in Ulyanovsk.

ECONOMY

CZECHOSLOVAKIA

FORMER CZECH ECONOMIST EVALUATES CSSR SYSTEM

Stuttgart OSTEUROPA in German No 11, 1985 pp 813-826

[Article by Jiri Kosta, Dr. rer. pol., Csc. oec., Professor of Economics (specialty: Socialist economic systems) at the University of Frankfurt/Main: "Relaxed Central Planning--Without Success"]

[Text] On Economic Development in Czechoslovakia

It is an old experience that pressure for reform increases with growing functional weaknesses of Soviet type planned economic systems. Czechoslovakia (SR) is an eloquent example of the interrelationship between economic crises and reform attempts. The growth and supply crisis of the early 1960's was followed by an economic reform whose fate was sealed by the foreign policy intervention in August 1968 and the ensuing, forced change in course of the country. A temporary upswing at the beginning of the 1970's, under the conditions of an essentially centrally-directed planning system, made possible mostly due to favorable external factors, but also containing system-inherent weaknesses, was superseded by a trend of recessive growth, which led to a critical decline in development around 1981/1982 and brought about new discussions of reform.

Economic Starting Situation

The growth rates of national income produced (Table 1) not only show the gradual slackening of the development road of the Czechoslovakian economy after 1975, but also indicate that actual figures remained permanently behind the corresponding target figures.

We have reproduced both the gross and net values of national income, because Czechoslovakian publications in the years after 1982 juxtapose the former growth rates of the net national product with the comparatively higher growth of the gross product. This makes for a "rosier" picture.

The obvious downswing of the Czechoslovakian economy in the period of 1976 to 1982 was strained by a number of difficulties to be indicated here only with keywords. It was a matter of increasing shortages in basic materials and energy, the country's continuously deteriorating foreign trade position, supply problems in the agricultural sector, etc.

Table 1: Annual Growth of the Czechoslovakian Economy 1971-1983 (in percent)

		1971-75 ¹	1976-80 ¹	1976	1977	1978	1979	1980	1981	1982	1983
National Income Produced											
Gross ²	Target	5.3		5.2	5.3	5.2	4.9	4.3	3.7	2.8	0.5
Value ²	Actual	5.1		4.0	4.6	4.3	4.5	3.4	3.3	0.8	0.6
Net ³	Target	5.1	5.0	5.0	5.1	4.6	4.0	3.5	2.5	-0.2	1.6
Value ³	Actual	5.7		3.7	4.2	4.2	4.1	3.1	2.9	-0.1	0.2
National Income Spent											
	Actual	6.1		2.2	3.1	1.6	2.7	1.1	2.7	-3.4	-1.6
											0.7

¹ Annual average; ² Gross material product (including write-offs);

³ Net material product (without write-offs).

Source: *Statisticka Rocenka CSSR* 1983, pp 136-138; 1984, pp 127-129; *Economic Survey of Europe in 1983*, Geneva/New York 1984, p 125.

It would be all too simple to attribute the unfavorable development of the Czechoslovakian economy only to causes inherent in the functional problems of the central planned economy system. Similar to other countries deficient in raw materials, whose high degree of industrialization implies strong foreign trade dependency, the CSSR was hit in an almost catastrophic manner by the deterioration of the terms of trade which, subsequent to two oil price shocks, raised the price level of raw materials in proportion to the prices for industrial products to an extent unknown before. A further difficulty for the CSSR economy consisted in the recession in the West, which considerably impaired the absorption capacity of the markets in the capitalist industrial countries. (Compare J. Kosta, F. Levcik: *Economic Crises in the East European CEMA Countries*, Cologne 1985, p 7 ff.).

In addition to unfavorable external conditions, one must also take into account internal problems not directly attributable to central-directive planning: such as the more costly raw material deposits, and increasing stress on infrastructure and environment in extraction and processing of raw materials. In particular, the enormous quantities of West Bohemian brown coal, extracted by strip mining, constitute an impairment of the environment with which the CSSR economy was unable to cope. Furthermore, there is the economic structure, imposed through foreign policy and running counter to the country's natural conditions, which led to a one-sided predominance of heavy industry due to the political conditions after World War II, and which was further expanded through total

integration into the CEMA bloc (compare text further on, and J. Kosta: Outline of the Socio-Economic Development of Czechoslovakia 1945-1977, Frankfurt/Main 1978).

Well-Known Functional Shortcomings of the Economic System

Despite these influencing factors external to the system, the crisis tendencies in the CSSR must be attributed largely to the system-inherent weaknesses of the centrally directed planned economy (in which East bloc integration can also be considered caused by the system).

Table 2: Average Annual Productivity Growth in the Producing Sectors of the Czechoslovakian National Economy 1971-1982 (in percent)

	1971-1975	1976-1980	1981-1982
Work productivity	4.8	3.1	-0.1
Capital productivity	-0.1	-2.4	-5.9
Total economic productivity	2.35	0.3	-3.0

Source: J. Kosta, L. Levcik: Economic Crisis in the East European CEMA Countries, Cologne 1985, p 31.

The indicators listed in Table 2 point to three decisive weaknesses of the Soviet planning system, which was essentially reestablished after revocation of the reform elements of the 1960's, i.e.:

- first, the waste of resources, expressed in low work and capital productivity,
- second, the lack of structural adaptability to changing basic conditions,
- third, the enterprises' lack of willingness to introduce technical and organizational innovations (J. Kosta: Economic Systems of Existing Socialism, Cologne 1984, p 92).

The functional weaknesses mentioned become very clear if we focus on the development data of the CSSR national economy in the international context. The example of use and consumption of energy resources is particularly characteristic for the waste of production factors. Compared to the two Western industrial countries of Austria and the FRG, the energy-intensity in the CSSR was almost three times higher, a fact which is not attributable to a more favorable consumption level in family households, but rather to extremely high losses of energy use in industry and in transporting energy (R. Dietz: Energy Economy in East Europe and the USSR, Vienna/New York 1984, pp 34 and 39 ff.).

The two other shortcomings of the system--difficulties in structural adaptability and slowness of innovation--can be seen in the results of CSSR Western exports. According to computations by the Vienna Institute for International Economic Comparisons, the loss of market shares for CSSR

exporters amounted to 33.1 percent between 1970 and 1980, in the case of the GDR and Hungary, 20.8 and 21.4 percent, respectively. The CSSR share of exports of machinery and other technological products, typical for the technological level, to worldwide imports of this class of goods dropped from 2.1 percent (1970) to 1.47 percent in 1980 (F. Levcik, J. Skolka: *East-West Technology Transfer. Study of Czechoslovakia*, Paris (OECD) 1984, p 20).

Basic Features of Reform Measures from 1978 to 1981

On 1 January 1978, a "complex experiment for controlling the efficiency and quality of production" was introduced in about 150 enterprises which are united in 17 production associations; in Czech terminology, "economic production units" (VHJ) (*HOSPODARSKE NOVINY*, 2/1978, supplement).

The emphasis of the corresponding directives was placed on utilizing monetary instruments and strengthening material incentives. The basic tendencies of the "complex experiment" consist, on the one hand, in a combination of small steps of decentralization, and in centrally administered regimentation, on the other hand, but not in a reform concept oriented to market economy (ibid.). On the basis of allegedly positive experiences with this experiment (F. Chval, J. Cerny, in: *REVIEW OBCHODU PRUMYSLU*, *HOSPODARSTVI*, 7/1980, p 80), the government in 1979 passed a new resolution which has been called a "complex of measures of the system of planned direction of the national economy after 1980" (*RUDE PRAVO*, 14/3/1980). Based on the appropriate resolutions, at the beginning of 1981 measures specified in the document were introduced in industry as well as in the construction and service industries.

Overall, the reform steps can be seen as an attempt to relax somewhat the present economic plan system in order to increase efficiency without shaking the foundations. It appears that this is a case of a compromise between different opinions of experts that had to be accommodated. As will be shown, this impression is also confirmed by the discussions of the problem in CSSR trade journals in recent years. (Our statement is based on articles in the trade journals *PLANOVANE HOSPODARSTVI*, *HOSPODARSKE NOVINY*, and *POLITICKA EKONOMIE*, which will be quoted later on.) The spectrum of opinions, which becomes only partially visible in the above-mentioned document of resolutions, ranges from the evidently less influential economic scientists advocating a larger reform to those economists aiming only at improvements in the economic index system and forms of incentives, whereby the instruments of central-directive planning are possibly even to be expanded.

Administrative and Managerial Structure: Small Changes

The structure of administration has hardly changed under the resolutions of 1980. The leading role of the party, the strong position of the state planning commission, which continues to enjoy a predominant place vis-a-vis the numerous sector ministries, subordination of the VHJ syndicates under the ministries, and last but not least, the enterprises

operating at the lowest level of the managerial pyramid--this order corresponds to the traditional Soviet-type administrative structure. There are, however, a few new accents and peculiarities.

The VHJ as the middle management level (it corresponds approximately to the combines in the GDR) is to be expanded, to a much greater extent than up to now, as a fundamental member of the administration. VHJ was created in 1958 as a counterbalance to the overly powerful ministries of industries with their former central administrations, and later on was reorganized several times. Of the three VHJ types--the horizontally organized "trust", and the two types of "syndicates," usually of vertical organization--the strongly centralized type of syndicates, sometimes called combines, was recommended as the prospective form after 1980. According to the complex of resolutions, the general managers of the syndicates now fulfill--vis-a-vis the central authorities--the function of planning executant, tax payer, fund manager and borrower, whereby action by the central authorities and banks against individual enterprises has been greatly reduced, albeit not eliminated. (V. Stepanik, in: FINANCE A UVER, 6/1984, p 393).

It must be conceded that certain limits have been put on the decision-making authority of the management of the syndicates vis-a-vis the enterprises, which are probably not as tight in all cases as they appear at first glance. Overall, however, just a listing of the manifold functions of VHJ would show the strengthened position of the mid-level administration, both vis-a-vis the central authorities and at the level of individual companies. Also, it cannot be overlooked that a side-by-side existence of large, medium and small enterprises is being advocated, and the arguments for it, because they are plausible, do not need to be repeated here.

National Economic Planning: New Elements

The 5-year plan is to be the basis of planning; incidentally, a demand made time and again in earlier declarations of intent by the political leaderships. The complex of measures demanded that the goals of the seventh 5-year plan (1981-1985) be incorporated in a forecast stretching to the year 2000, formulated in "complex development programs" and finalized in "state target programs," which was to be linked with the "long-term target programs" of CEMA. Finally, to be determined in the 5-year plan were the "basic tasks" and "limits of funds," including "normative material stimulation." (On the following, see J. Kosta, in: OSTEUROPA-WIRTSCHAFT, 2/1982, p 96; L. Strougal, in: Ke zdokonaleni plánovitého rízení narodního hospodářství, Prague 1980, pp 15-42, 123-128, and Sborník statí ke zdokonalení soustavy planovitého rízení narodního hospodářství, Prague 1980, pp 30-37).

On the one side, the basic tasks take the shape of quantitative indices: among them are indicators such as "selected products in commodity units," "deliveries for investment building according to sectors," "operation of new industrial installations," "production tasks in selected new issues,"

"deliveries for export according to sectors," "exports of complete installations," etc.; on the other side, the reform measures deal with qualitative indices, among them: "profitability of funds of fixed assets," "work productivity compared to company performance (i.e., net product)," "differential indicator of foreign trade and domestic prices," "kilogram prices of export goods."

Among the numerous binding indices to be incorporated in the 5-year plan, which are to express efficiency and satisfaction of demand better than the previous target indices (gross production, investment volume, etc.), the new index of "adjusted company performance", conceived as a measuring stick of success, stands out. This indicator of the "type of net production" (gross production minus the costs of materials) forms the basis for normatives, especially for stimulation funds (see later in the text).

In allocating the 5-year plans, "tolerance limits" (values from - to) are to be allowed. In the yearly plans, individual binding indices are no longer to be set, but rather the above-mentioned normatives. Assumption of greater planning tasks by the enterprises through "counterplans" are recognized through higher wage and premium allocations. In case of non-fulfillment of the plans, post facto cuts have to be made. The document and all commentaries stress that the stability of targets set over a period of several years and economic rules, i.e., normatives, tax rates, etc., are a prerequisite for the effectiveness of the extensive and sophisticated plans. On the other hand, it is conceded that long-term plans under changed basic conditions, especially in view of interlocking international relationships, should not be set once and for all.

This shows an almost unsolvable contradiction between the principle of stability of planning on the one hand, and flexible adaptation of the national economic plans on the other hand. The rapid changes in world market prices after the second oil price shock of 1979, in particular, made price adaptations necessary which delayed preparatory work on the national economic plan. Thus the VHJ and enterprises received, much too late, the necessary information regarding their particular plan targets. Up to then, "the economy" was directed "essentially according to the yearly plans which deviated from the original plan targets." (NOVE SLOVO, 6 Sep 1984, p 4f.; also compare V. Kadlec: Rok 1984 ekonomicky, in : LISTY, Rome, 1/1985, p 34 f.; this article by a formerly prominent economist, published in the exile journal, bases its critical statements on a great number of quotations from the CSSR trade press.) It shows that the intention of giving up, in the annual state plans, the traditional plan indices such as production targets and input allocations in favor of normatives, was not implemented.

In Soviet-type planned economies, balance-sheets of materials have always been one of the fundamental instruments of coordination between the availability of a product and its use. The fact that balancing has partly been moved from the central authority to the middle level of decision-

making, i.e., the VHJ, will hardly justify the hoped-for improvement of the coordination mechanism.

The commercial contracts between supplying and purchasing enterprises are based on the balance-sheets and plan indices. The institution of commercial contracts is being revaluated in several regards (Sbornik, op. cit., p 38). Firstly, the parties to the contract are under much greater administrative and economic pressure to conclude the contract which formerly—as is being stressed now—frequently never materialized. Discharge of the contractual obligation is incumbent upon the Office of State Arbitration. Secondly, special emphasis is placed on concluding contracts covering several years whose life, as a rule, is to correspond to the 5-year plan period. Thirdly, there is to be reciprocal influence between plan drafting and contract negotiations, whereby the commercial contract is possibly to be signed before fixing the plan targets.

Increasing Importance of Monetary and Economic Incentives

The growing importance of monetary management forms and economic incentives can be clearly observed in the CSSR in the late 1970's. In the above-mentioned list of measures, this trait is usually euphemized with the well-known term "Chosrastschot." In detail, it is a matter of a) the financial scope of the enterprises, b) the problem of prices, and c) economic incentives.

Financial Scope of Enterprises: The principle of self-financing of investments is to be applied fully in the VHJ. (On this point, see: L. Ler, discussion paper, presented at a panel of functionaries on the occasion of the passing of the complex of measures, in: *Ke zdrojonaleni*, op. cit., pp 114-122 [Ler is finance minister and chairman of the government committee for questions of planned management of the national economy] ; Sbornik, op. cit., pp 43-61). In the first place, self-financing is to be given greater importance, and there is to be more leeway than before for loans, while financing from the government budget is to be greatly reduced. Even if such a procedure could be implemented, it could only affect the VHJ—if the stipulations of that document are followed—but hardly the individual enterprises. As a rule, only the syndicates are authorized to redistribute the profits and losses achieved in the individual enterprises. The financial scope of the individual enterprises remains relatively narrow.

The funds of the enterprises are an important instrument of monetary management and stimulation. The document distinguishes between two types of the funds of VHJ and enterprises: financing fund and stimulation fund. (For more detail, see J. Kende: *Czechoslovakia: Goals, Problems and Strategies of Economic Policy during the Early 1980's*, Berlin 1982, pp 59-65). The individual funds are fed on the basis of the above-mentioned formatives. Basically it is a matter of putting a part of the profits achieved into the funds concerned, according to precisely fixed conditions and depending on the most important indicators of success (adjusted company performance, fund profitability, export targets, etc.), and

according to certain percentage rates. In order to use the funds as levers, the levies of the enterprises, especially profit transfers, have been reduced. The financial leeway in the sector of formation and use of the funds is greater on the VHJ level than at the level of individual enterprises.

The Problem of Prices (K. Sabolcik, Discussion paper [see above, Lcr], pp 130-136; the same, in: *PLANOVANE HOSPODARSTVI v letech 1984-1985*, D. 1-10; R. Gruenwald, in: *POLITICKA EKONOMIE*, 7/1984, pp 735-744; P. Vencovsky, in: *PLANOVANE HOSPODARSTVI*, 8/1984, pp 22-27): It is still a much discussed, but open, question in how far prices are to be considered and established as "values," according to the criteria of cost and/or utility value, that is to say, according to their use and limited availability.

In the traditional system of the centrally planned economy, the domestic production enterprise was protected from external price influences, since the state foreign trade enterprises carried out their transaction at world market prices, and the differences were charged to the national budget. The change in the terms of trade made it obvious that, under these conditions, the already existing barriers against a structural adaptation were especially great. The necessity of letting changed international price relations influence the relative prices of the domestic economy, gradually gained acceptance.

Under the term "rationalization of the price system" (M. Sabolcik, op. cit., pp 4ff.; V. Janecek, in: *PLANOVANE HOSPODARSTVI*, 8/1984, pp 46-57), during a first stage—from 1979 to 1982—the prices for fuels were raised annually. In 1981, a price increase for other imported raw materials was added, and in 1982, prices were also increased for additional basic and other materials being produced on the basis of the much more expensive raw materials. In a few exceptional cases, however, wholesale prices were lowered.

Through cost savings in the processing industry and in transportation, passing on the price increases to consumer goods prices was to be avoided as far as possible. That this intention could not be carried out is not only indicated by price increases, such as the price raises for meat, tobacco and alcohol, officially announced at the beginning of 1982 (Kosta, *Neuere Entwicklungen*, op. cit., p 96). Probably much more serious were the hidden price increases: evidently, the enterprises made extensive use of the chance to mark higher prices for "new" products, as permitted by the regulations under the keyword "price stimulation." Efforts by the authorities to stop such practices came up against the limited information capacity which makes effective price control impossible.

It is not possible for the outsider to estimate the increase in the level of retail prices, and the extent of state support which is to keep the price index for consumer goods within limits. Developments from 1981 to 1985 resulting from these and other changes in wholesale prices, are listed by an employee of the Federal Price Office with the following figures (V. Janecek, in: *PLANOVANE HOSPODARSTVI*, 8/1984, pp 46-57):

Price increases of fuels, in total	+ 72.3 %
Among them:	
Imported raw materials	+111.1 %
Domestic fuels and raw materials (including agriculture)	+ 54.4 %
Increase in wholesale prices of all products	+ 17.2 %
Among them:	
Finished products	+ 12.2 %

Not covered in the decisions on price policy is the question at what level of decision-making price formation should take place. Evidently, liberalization of price decisions is not being considered. The statements on uniform guidelines for cost accounting do give the impression that prices are fixed by the Federal Price Office for only a part of the diverse goods categories. Certainly, a certain amount of pricing authority is vested at the enterprise level, since only here is the necessary information about individual cost components available. But in this case, also, the VHJ probably has greater pricing authority--within the framework of central directives and controls--than individual enterprises.

Economic Incentives (Ke zdokonaleni, op. cit., pp 61-66; Sbornik, op. cit., pp 81-82; J. Kosta, Neuere Entwicklungen, op. cit., p 97): Among profit incentives in the widest meaning of the word must be counted all monetary instruments; therefore, not only payment for work, but also prices, credits, interest, exchange rates, etc. We want to limit ourselves here to only those which are directly effective in the form of wages and premiums.

Wages as a "fundamental component" (complex of measures) of compensation for work, which continue to be determined by national pay scales on the basis of job and qualification classifications, are set with the help of normatives dependent on the index "adjusted self-performance." This means a relinquishing of the priority position of "gross production," which up to now was the main measure of success, often expressed through the index of work productivity, and which brought about the known effects of waste (Kosta, Neuere Entwicklungen, op. cit.).

In addition to the amount of wages, the premium fund is also fixed on the basis of normatives. While wages are considered costs, the premium fund--and similarly, the stimulation fund--is formed by setting aside a part of the profits achieved. As a rule, its amount depends on fulfillment of the index "profitability of the fund of fixed assets" and other, company-specific efficiency indices. On the average, basic wages of all workers and employees are to be about 80 percent so that premiums make up the remaining 20 percent. It is up to the VHJ syndicates to decide the criteria which are of importance for the premiums of individual employees. None of it can be considered a new phenomenon.

Reform Measures in Agriculture

In September 1981, the government passed a bill called "principles of a perfected system of planned management of agriculture" (HOSPODARSKE NOVINY, 45/1981, supplement). The direction of impact of the regulations in question correspond to the measures in effect for one year in the secondary and tertiary sectors, respectively. Therefore, the reform attempts in the agricultural sector can be interpreted only as a limited relaxing of the continuing centralistic-directive planning system. (On the following, see Kosta, Neuere Entwicklungen, op. cit., pp 97 ff., and ZEMEDELSKE NOVINY, 5 Nov 1981).

In the government resolution, special attention is paid to planning within the framework of the so-called "economic agrarian-industrial complex;" one can interpret this somewhat nebulously defined structure as the coordination form of agricultural cooperatives and state farms as well as their supplier and buyer organizations, whose activity is coordinated by higher authorities. By involving all individual segments, production and purchase plans, appropriate input plans (work force, wages, investments, basic and auxiliary materials) and the major indices of financial planning are to be coordinated reciprocally. With the documents at hand, it is difficult to analyze how this interlocking of individual and overall plans is brought about and how it functions.

For agricultural enterprises, the rules are analogous to those for industry. The annual plans result from the targets of the 5-year plan, where the system of counterplanning is also to be applied. Among the binding indices in the resolution--their number was reduced--, purchase quotas for grain and animals for slaughter are listed, and "at the most, three" further items. Natural planning and balancing is to provide the requirement limits of fodder, fuels and energy, as well as the figures for other needed operating means (fertilizer, seed grain, machinery, etc.).

As for monetary management forms, in a balance-sheet table for 1982 the document compares the financial requirement and yield flows. On the requirement side of the balance-sheet, higher buying prices, "differential surcharges" and "growth premiums" are to effect a production increase; on the yield side, subsidies for fodder mixtures were cut, and prices for operating means were adjusted upward, which is to stimulate more economical use of resources. The resulting negative balance (a 2.9 billion korunas coverage in requirements) was to be financed from the national budget.

1983-1985: Old Problems--Further Measures

The following data will show how difficult the situation looked at the beginning of 1984: according to official statistics, the level of private consumption rose by 0.8 percent compared to 1978, that of retail sales by 0.4 percent; average real wages dropped by 2.6 percent, per capita consumption of meat by 2.2 percent, and housing construction even fell 26

percent. With regard to the development of the national income, on the basis of CSSR price statistics one comes realistically to the same conclusion as F. Levcik: "A necessarily rough estimate indicates that the net material product at realistic constant prices during 1981 and 1982 dropped by more than 6 percent compared to 1980." (EUROPAEISCHE RUNDSCHAU, 2/1985).

It would certainly be too limited a perspective if one were to interpret the crisis development of the early 1980's as a consequence of the complex of measures introduced on 1 January 1981. First of all, factors not inherent to the system were involved, such as the terms of trade, and secondly, in any system reform one must expect a time lag, since the aimed-for effects of economic policy can never materialize immediately. Nevertheless, at least by 1982 a certain effect of the measures should have been noticeable, as the authors had expected. Continuation of the extensive growth trend, continued inefficiencies, the noticeable reserve of enterprises vis-a-vis innovations--all this is not only criticized time and again in the trade press, but also in statements by politicians and commentaries in the mass media. (Compare, among others, V. Janza, in: Planovane hospdarostvi, 5/1984, p 4; S. Sourek, ibid., 9/1984, p 1.)

The indicators characteristic for the functioning of the control system, and therefore especially for the reform measures introduced after 1980, should have shown a more favorable picture by 1982 or 1983, at the latest. This does not change because of the fact that there was a slight increase in the production growth rate in 1983 which continued in 1984 (compare Tables 1 and 3).

Even if the dates in Table 3, based on official statistics, are not considered inflated, the theory of an upswing is untenable (and this is even truer if one calculates the statistical errors, as shown in the table). As the table indicates, even work productivity before 1983 did not yet surpass the level of 1980 and grew by an annual average of only 1 percent during the last 4 years. During the same period, capital productivity dropped by about 15 percent.

Table 3: Efficiency Indicators of the CSSR national economy (1980 = 100 at 1977 prices)

	1981	1982	1983	1984
1. Work productivity	99.6	99.8	101.7	103.8*
2. Capital productivity	94.6	89.3	87.5	84.8*
3. Material intensity	100.7	101.8	102.6	102.9*
4. Energy intensity	99.2	98.0	97.0	95.0

1 Estimated
1. National product per employed person. 2. National product per unit of fixed assets; 3. Material input (previous work) per unit of national product; 4. Primary energy consumption in Terajoules per unit of national product.

Sources: Statisticka rocenka CSSR 1984, p 128; Plan fulfillment report of the Staistical Federal Office for 1984, in: RUDEPRAVO, 28/1/1985, quoted from: F. Levcik, Economic Development, op. cit., Table 4.

The only partial success was registered in the energy sector. Here, indeed, savings were achieved, although they are due to rigorous administrative measures (cutting-off of electricity at given times, darkness in the cities, etc.).

Proof of the in reality inadequate technological standards of Czechoslovakian products can be seen in the unsatisfactory results in the export markets. This is no wonder when—as proven by one author—kilogram prices for exports from Western industrial countries came to \$8.44 per kg at the beginning of the 1980's, while exports from the CSSR reached a price of \$2.6 per kg. (E. Klvacova, in: HOSPODARSKE NOVINY, 49/ 1984, pp 8-9. In the trade literature one assumes that, in a competitive market, a relatively higher price per kilogram of a metal product sold represents an indicator of a comparatively higher technological level.) The insufficient competitiveness of CSSR export goods in Western markets, a result of the low technological level, is also confirmed by an OECD study in 1984: between 1979 and 1981, export of technological equipment and other investment goods ("engineering products"), price-adjusted, dropped by 6.1 percent (Levcik/Skolka, op. cit., p 44).

In Table 3, one important efficiency indicator is not taken into account, i.e., stocks on hand. At present, the output in the CSSR is statistically recorded both on the microlevel and the macrolevel at completion of the production process, i.e., before the moment of sale. There are constant complaints about unsold stock. A member of the State Planning Commission criticized at the end of 1983 that "the amount (of stockkeeping) in industrial organizations with 90 percent of the annually produced national income (during the years 1966-1970) constitutes a great part of idle work (an average of 65 percent) (L. Smid, in: PLANOVANE HOSPODARSTVI, 12/1983, p 3; M. Kerous, ibid., 6/1985, pp 54ff.).

If one interprets the data listed in Table 3 and the above-mentioned statements on uneconomical inventory holding, it becomes clear that at least up to 1984, system weaknesses such as inefficiencies, production not geared to needs, and sluggish reaction to innovations have not been overcome since the measures were introduced in 1981. In the weekly economic journal published by the Communist Party one could read that, in an editorial conversation of leading managers with the chairman of the State Planning Commission, it was pointed out time and again that the enterprises received too many plan requirements from above and could, therefore, only be concerned with fulfilling the plan indices, rather than the interests of the enterprise. While the plant managers pleaded for fewer plan directives, the government member advocated "perfectioning of planning." (HOSPODARSKE NOVINY, 25/1983, pp 6-9; also compare, ibid., 20/1985, p 9).

As mentioned above, the authors of the reform packet intended to dissuade industrial management, with the aid of "counterplanning," from covering up their plan reserves. If, in the course of plan formulations, the enterprise assumes higher production quotas, lower input allocations, more favorable efficiency indicators, etc.; in short, if it assumes on its own "harder" plan indices than set down in the planning authority's original guideline plans, then the normative rates provide for an increase in the amount of wages and premiums. In case of falling below the guideline figures, the pay funds are cut.

An analysis of the use of the instrument of counterplans in the country's Czech Socialist Republic shows that the expectations of the authors of the complex of measures were not fulfilled during 1981 to 1984 (J. Macek, P. Smula, in: *PLANOVANE HOSPODARSTVI*, 4/1984, pp 51-60). Experiences in Slovakia were similar. A local author lists a number of reasons which, in her opinion, explain the failure of counterplanning. According to the economist, "the major problem consists in the enterprises' fears that, if they toughen the plan requirements on their own, the ministries and VHJ will frequently correct the planned target according to the preceding plan fulfillment (i.e., increase it all around), without taking into account the goals of the 5-year plans, and also without taking into account the appropriate advantages, such as wages, increasing premium funds, etc." (V. Sysakova, in: *EKONOMICKY CASOPSIS*, 6/1984, p 558f.) The problems of counterplanning, extensively described in both articles, indicate that neither the problems of information or of interest, both Achilles heels of directive plan centralism, have been overcome.

1983-1985: Some New Reform Elements

Having recourse to the experiences made with the 1981 list of measures, the CSSR government decided at the beginning of 1983 to introduce further experiments, concerning three areas in particular: scientific-technical progress, investment financing, and organization of foreign trade. (L. Ler, in: *HOSPODARSKE NOVINY*, 9/1983, pp 1, 5; SVET HOSPODARSTVI 29/9/83, pp 1-2; *PRAVDA*, Bratislava, 13/4/1984, pp 1, 4; S. Bukac, in: *PLANOVANE HOSPODARSTVI*, 9/1984, pp 1-8).

The technological level is to be raised with the aid of improved plan indices, normatives related to them, price formation, and rules of financing, which are to be applied as a lever for promoting innovation. With regard to investment financing, under the experiment the separation of the two funds--the present development fund for decentralized investments and the reconstruction fund for centralized investments--is to be abolished. Now, a uniform fund is to be established, fed mostly by company funds and write-offs. Investment credits are to be granted under stricter conditions than up to now, and subsidies from the national budget will be granted in exceptional cases only.

In foreign trade, two new organizational forms are being introduced on an experimental basis, which above all are to promote exports to the West. In the first form, the state foreign trade enterprise acts as the agent of

the production plant, that is, it acts in its own name, but on account of the producer. This regulation is to apply to vehicles, laboratory equipment, and other product types. The second form consists in the organizational and economic incorporation of the former foreign trade enterprise, or one of its departments, respectively, in the production unit (for example, in case of pumps, products of high-voltage technology, etc.). Furthermore, for those industrial enterprises manufacturing products for export, the binding index of "foreign currency for documents" is being introduced. With the help of these instruments, the shortcomings of insufficient market orientation are to be overcome, and the lacking incentives for enterprises producing for export are to be created.

The reports published so far on the effects of these new reform attempts are not exactly encouraging. As reported at the beginning of 1985, new technologies continue to be accepted only hesitantly. "Scientific-technical progress, and innovation activity by the enterprises, so far has not become the decisive method and determinant of intensification...., the economic efficiency of exports is not growing to the required degree; with a view to construction investment, excessive dispersion of construction capacities and overly long construction periods continue to be criticized" (V. Cap, in: PLANOVANE HOSPODARSTVI, 2/1985, pp 10 and 15).

CSSR economists and politicians continue to criticize openly the operating method and the results achieved by the spring of 1985, after introduction of the measures. However, the conceptual conclusions from the failures reached by economic scientists are divergent. The more influential experts, whose opinion will probably be reflected in future decisions of the political bodies, are advocates of a "progressive structural change, better plan indices and normatives, more precise balance-sheets, more sophisticated calculation methods, better qualified management, etc.; but in their opinion, central-directive planning is to be maintained. (Compare also J. Hvorecky, in: PLANOVANE HOSPODARSTVI, 7/1984, pp 1-7; M. Premer, ibid., 9/1985, p 3; J. Mervart, in: POLITICKA EKONOMIE, 1/1985, pp 61-72.) Only a minority of economists--at least as far as publications are concerned--advocates a market-oriented reform which is to change the old system. (In some articles, mostly based on theoretical arguments, the plea for a system-changing reform a la Hungary is made very indirectly; among others, compare J. Goldman, K. Kouba: Terms of Trade, Adjustment Processes, and Economic Mechanism--A quantitative approach, in: Acta Oeconomica, Vol 32, p 1f.; M. Kerous, op. cit., p 59).

Within the framework of the "strategy of perfecting," and on the basis of a resolution by the Central Committee presidium of the Communist Party of the CSSR and the Czechoslovakian government published in the fall of 1983, to become effective in 1986, work was begun to "further perfecting the system of planned management of the national economy, and with a view to preparing the eighth 5-year plan" (RUDE PRAVO, 7 Sep 1983, p 1). As a result of the corresponding program preparations, the government published a document on 13 September 1984 with the title, "major directions of the further development of the complex of measures to perfecting the system of planned management of the national economy." In addition to verbose and

generalized statements on present and future reform steps, this document presents some more concrete measures, some of which were introduced in 1983 (see above) and 1984, others referring to future years (HOSPODARSKE NOVINY, Nos 42 and 43/1984, supplement). To list a few of these old-new elements:

- The success indicator, "adjusted company performance," is to be modified through deduction of loan interest and inclusion of profits or losses, respectively, from foreign trade operations;
- central and decentralized investments--in the latter case, now without the fixed maximum amount (until now, 2 million korunas)--are to be financed in all enterprises from a uniform investment fund (see above);
- economic results achieved in foreign markets are to be included in the profitability accounting of the production plants, and in selected cases, this also holds true for subcontractors of primary products;
- present criteria for price formation, in particular reference to world market prices, are to be better taken into account than up to now. For certain consumer goods, not only the retail price but also the wholesale price based on the former is to balance supply and demand and to indicate shortages;
- wage differentiation is to be advanced more energetically; for managerial staff, a larger portion of their work income is to be tied to success;
- the position of the purchasing plants is to be strengthened vis-a-vis the supplier enterprises.

One must, however, see as relative the increasing utilization of monetary control forms and the tendency to decentralize decisions, which is occurring here and there. First of all, most of the statements in this resolution are general and vague indications of a tendency. Secondly, and more importantly, the decentralized elements are counteracted by numerous centralistic-directive control forms; among them are: preset or centrally fixed economic and sector target programs, central investment projects, import and export quotas, indices in the form of instructions, limits, priorities, etc.

The economic policy options in the CEMA countries cannot be selected autonomously by the CSSR leadership. For one, the structural framework of economic development is largely determined by being tied into the CEMA bloc. For another, the more difficult basic conditions for domestic and foreign trade during the last decade impose further limits on a small, industrially developed, but raw material dependent country like the CSSR, within which the political decision-makers have to act.

Final Remarks

If one notes the slight upswing during 1983 and 1984, one must ask if the decisive turnaround has not happened, after all. The cyclical movement of East European national economies, known from earlier periods and much studied (Kosta/Levcik, op. cit.), this time is moving on a much lower level of upswing than before. The growth rates of the last 2 years, rather

low by East European standards (according to official statistics, the net material product rose by 2.4 percent in 1983 and 2.6 percent in 1984, the national income spent domestically rose by 0.7 and 1.7 percent respectively; see Levcik, Economic Development, op. cit., Table 3), indicate that the desired turnaround was not accomplished, after all.

The fact that the 1983 decline was halted, nevertheless, and that moderate growth rates were achieved, is probably due less to the success of the control instruments and planning forms used, and more to the somewhat improved basic conditions: the latest development of world market prices, more favorable sales opportunities in Western markets, and the backlog demand potential which accumulates during every downswing phase of a planned economy. Insofar as the small reform steps, carried out in 1981 and supplemented in 1983, had success, it must probably be attributed to administrative planning pressure--such as tougher consumption and performance norms--rather than to economic levers.

In summary, the economic order presently established in Czechoslovakia can be characterized by the following essential traits:

- Central fixing of target plans on the basis of a closed household economy for the enterprises for production of goods and services, as well as allocation of production factors.
- Use of monetary criteria and incentive forms, to influence favorably performance and efficiency.
- A tendency toward decentralization of the administration from the state and ministerial level to that of the sector institutions (VHJ in the CSSR, the combines in the GDR, Objedinjenija in the USSR, associations of enterprises and large agro-industrial enterprises in Bulgaria, etc.). Individual enterprises, subject to the general management of sector associations, continue to have limited leeway in the available decision-making process.

If one attempts to compare and systematize the reform types of socialist economic systems which have developed in CEMA countries since the 1970's, then the present order of economic planning in the CSSR corresponds to the type of loosened plan centralism to be found in the Soviet Union, the GDR, Romania, and in somewhat divergent form, also in Poland and Bulgaria. Hungary is the only CEMA country which attempts to implement a larger reform concept oriented toward market economy.

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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

UNIVERSITY RESEARCH INTEGRATION INTO INDUSTRY VIEWED

East Berlin DAS HOCHSCHULWESEN in German Vol 33 No 10 Oct 85 (signed to press 14 Aug 85) pp 277-288

[Article by Dr Michael Goerig, research group leader in the Central Institute for University Education in East Berlin: "Ensuring Quick and Effective Utilization of Economically Significant Research Results From University Level Institutions"]

[Text] The further development of our national economy puts the highest challenges to quick and efficient utilization of research results in national economic practice. Analyses of higher education research results point out, however, that it is exactly this transfer that is not sufficiently mastered in the system of managing and planning scientific-technical progress. From the point of view of higher education research it is especially necessary to intensify cooperation of higher education institutions and their practice partners--from the establishment of goals and tasks to the critical evaluation of research results and their transfer and application to practice. (Footnote 1) (cf "The Tasks of Scientific and Educational Policy at Our Institutes of Higher Education in the Academic Year 1983/84" (From an address by the minister for higher and specialized education at the conference of higher education directors on 4 and 5 July 1983 in Koethen) in: DAS HOCHSCHULWESEN Vol 9/1983 p 256. "Good Results at Higher Education Institutions at the 35th Anniversary of the GDR--Stable Basis for Further Achievement Increase" (From an address by the minister for higher and specialized education at the conference for directors and board members of higher education institutions on 2 and 3 July 1984 in Dresden) op cit Vol 9/1984 p 225) In general terms, transfer must be more intensively placed into the center of management activity--with practice partners, state authorities and also higher education institutions--i.e. management must participate effectively in the organization of successful practice, and must create the necessary conditions for a transfer process that is as uncomplicated as possible. It happens too often that it is left up to those responsible for subject matter development and their practice partners alone if and how they attack the problem of transferring research results.

As regards subject matter development important for a quick and effective utilization of higher education research results, a number of research projects were performed by the Central Institute for Higher Education in the context of ZP [central party] project. (Footnote 2) (cf Goerig M, et al, "Conditions

and Challenges in Guaranteeing Quick and Effective Utilization of Higher Education Research Results Important for the National Economy" Central Institute for Higher Education, Berlin 1984, Scientific Work Reports, 1984) In agreement with the annual reports of higher education institutions, the projects point out that in general terms there is a successful transfer of higher education research results into social practice. At the same time, essential problems and reservations in the transfer process became evident. The research projects prove that the decisive capacities for increasing the effectiveness of the transfer process lie especially in subjective factors and in conditions of management and organization.

Cooperation With Practice Partners--A Key Condition for Successful and Quick Transfer of Higher Education Research Results

Transfer of higher education research results to industry works especially well when there are the conditions and the will to meet each other halfway on both sides, and when the transfer field is bridged through cooperation, and therefore does not become "no man's land." A complex method of cooperation with practice partners that is based on trust and mutuality and extends over as long a period as possible, the practice partners here being the true utilizers and producing agents of research results, is of special importance in this regard. In this way the necessary objective as well as subjective conditions for quick and successful transfer of higher education research results can be created. There is no way of giving administrative directions for the necessary attitudes, thought processes, and the sense of responsibility on both sides, as well as for understanding the partner's job, all of these things develop as a rule only through cooperation and active discussion.

An important experience teaches that the decisive basis for all forms of cooperation is the establishment of content and scope of responsibility. If the common problem area is exhausted or if the development of basic research requires a change of content orientation in basic or applied research, existing partnership combination or forms of cooperation must be changed in as much as they cannot deal with the new research content.

The following factors have proven to be conducive to effective cooperation:

--agreement and interrelation of higher education research strategies with development strategies of their practice partners.

By interrelation of strategies must not be understood, however, that basic research in higher education will subordinate itself unilaterally to the strategies of the practice partners. On the contrary, basic research must decisively influence the strategies of practice partners, must prepare important conditions for the development process of these strategies. Therefore, special importance is assumed by the strengthening of analytic, prognostic and strategic activities for the determination of most promising research directions and for avoiding erroneous developments. This requires, among other things, intensive concept work and mutual influence in higher education institutions and among practice partners.

--joint, simultaneous work on research problems by higher education institutions and practice partners.

Parallel work on different achievement levels by higher education institutions and practice partners as well as application-oriented research work done by companies in conjunction with basic research work performed by higher education institutions are measures that save time, assure transferable results and decrease costs of transfer preparations by higher education researchers.

--mutual personnel exchange, temporary employment of higher education researchers, and the purposeful use of graduates by practice partners.

On this point, research has come up with many examples (e.g. mutual personnel exchange is about 20 percent of research projects performed). There are no essential differences between higher education institutions in the utilization of this very effective possibility. In one of the cases researched by us no personnel was sent to higher education institutions by the practice partners, but "only" planning positions were prepared. As useful as planning positions may be for the expansion of the research capacity of higher education institutions, the important effects of personnel exchange are not fully utilized in this manner. Practice partner personnel, on the basis of their understanding for research gained in their work at higher education institutions and of their identification with research jobs, can, e.g., influence "from below," so to speak, (supplementing the activities of management) the readiness of practice partners to utilize research results and solve ongoing problems.

--organization of a joint scientific life with practice partners.

Only in a few of the test cases a joint scientific life between practice partners was found to exist. These few examples, however, demonstrated the high effectiveness of joint scientific life for research, transfer and utilization of research results. Such forms of scientific life as joint monthly research seminars (applied and basic research-oriented), annual meetings, courses of instruction, such as those that are used by the FSU [Friedrich Schiller University] mathematics department and the VEB Cooperative Carl Zeiss, Jena, on the MATMOS complex, have set important conditions for an effective cooperation, a change in attitude and thought process by company personnel, and have prepared the groundwork for effective work by graduates.

--close contacts between higher education institutions and practice partners on all levels (management as well as manufacturing).

A direct, close cooperation on the manufacturing level without fixed organizational form and by way of the "lower level chain of authority" has proven especially effective on several occasions.

The tests also prove that the technical practices established at several higher education institutions are effective links between higher education institutions and industry in order to prepare practice personnel to transfer research results, and to guarantee development of the research results that is appropriate to transfer conditions and compatible with technology. It is noteworthy

that through the work in technical practice an immediate cooperation of higher education researchers in companies was not necessary during transfer of research results (e.g. in a joint transfer collective); sufficient was a consultative cooperation used only when problems arose. This practice saves time and also benefits the research capacity.

The conditions created by technical practice in higher education institutions and the total progress made through the cooperation of higher education institutions and practice partners are, however, not yet sufficient. On the part of industry, these conditions must be supplemented by creating conditions for flexible cooperation with higher education institutions and for quick transfer of higher education research results; because now as before, cooperatives are not accepting, or accept only reluctantly, a number of valuable research results of the higher education system. Often the amount of possible products and the effective production are too small for industry, or the introduction of new technologies appears too costly and risky. But frequently these research results of the kind that will lead to new products, to a discharge of NSW [non-socialist economy] import loans, to good export possibilities and to meeting urgent needs of the national economy. Thus, higher education institutes often undertake development work and try by various means to interest potential manufacturers. Often they are not successful because some of their work remains, in spite of its high level of useful maturation, below the "attractiveness threshold" of the cooperatives. Thus it seems urgently necessary to create in the cooperatives flexibly reacting, intelligence-oriented sectors, i.e., from small to medium-size firms that are especially in tune with particular departments at higher education institutions (and central institutes of the AdW [Academy of Sciences]), and that accept research results that are below the "attractiveness threshold" of the current R&D sections of the cooperatives. In an analogous manner to that of the technical practice of higher education institutions, higher education researchers and students should be employed in these production sectors. In many cases the transfer of products and technologies developed in firms/sectors of this kind through the R&D and production sectors of cooperatives will be possible and necessary. At other times however development and production will remain in these firms/sectors.

The broad and effective utilization of many-sidedly usable research results, i.e., the transfer, accomplished as quickly as possible, of research results to all potential users who can make socially effective use of them, results in special challenges to the cooperation of higher education research and social practice. The tests show that the processes of multi-stage transfer of research results are less well organized and materialized, and are not managed as consistently. In general, the many-sided utilization of research results cannot be considered satisfactory--in spite of many explanations and appeals on the part of management. Higher education institutions can, as a rule, count on only one or a few potential users when they produce application models. Where results are concerned that are important for the national economy and have a wide potential circle of users it seems important that strong conditions for wide ranges of transfer are created by industry as well as central and local authorities; especially for partners who do not have any, or only small, R&D capacity.

The following patterns, obtained from the tests, appear useful for this purpose:

--Engineering Firms and/or Offices

Temporary or permanent engineering offices--as individual units or attached to a company--offer good conditions for quick, consistent and appropriate development of research results that are of special importance for the national economy where they can be used in many sectors. For different kinds of application, different kinds of development and project work are as a rule required. It would be inconsistent if every potential user company performed development work on the basis of the results supplied by higher education research. Also, many potential users frequently do not have sufficient R&D capacities of their own. Higher education researchers should work side by side with engineering firms of this kind and give scientific instruction.

--Interest and Users' Associations

The merger of potential users--possibly with inclusion of economic authorities--to interest and users' associations offers favorable conditions for quick and broad transfer of research results. As an example can be cited the interest and users' association on research results "Lasergravur" of the FSU, Jena, that was established in 1982 with active support from the MWT [Ministry of Science and Technology] and the bezirk planning commission Gera. Twenty-five cooperatives and companies are members of this association which operates under the scientific leadership of FSU.

--Application Centers

The joint establishment of application centers by producers and higher education institutions is an effective method of quick and broad transfer of research results into practice. These application centers have the following purposes: training of users, information of potential users, adaptation to users' specific conditions, and others.

It also seems advantageous to us to create structured units in selected cooperatives and companies that function as coordinators between basic research--applied research--development and production, i.e., as coordinators between higher education institutions and AdW institutes on the one side and the R&D sectors and production sectors of cooperatives on the other side. In these units, too, higher education researchers should work along directly. An example of a department working in this way at the VEB WF [Television Electronics Firm] Berlin--with cooperation of the Humboldt University--demonstrates the positive result of this work method--the mutual influence, follow-up, and constant cooperation during ongoing research work as well as the testing of results that are appropriate for transfer into practice. This is effective for basic research as well as research result transfer and for the formation required on both sides, of attitudes, thought processes, knowledge and interrelation of strategies on basic research and development in the companies.

International development tendencies (member countries of the RGW) in regard to the improvement of WTF management structure also point increasingly toward

the development of flexible forms of coordination and cooperation of scientific-technical work, and toward the creation of specialized transfer organizations which are expected to contribute especially to the proliferation of research results and to guarantee transfer help for companies. (Footnote 3) (cf "Opyt organizacij, planirovaniya, finansirovaniya i ekonomiceskogo stimulirovaniya sozdanija i vnedrenija novoj tekhniki v stranach-členach SEV/ Rukovoditeli raboty" Prokudin V; Starodubrovski V; Cucanacenko B, Moskva, Mesiðnarodnyi naucno-issledovatel'skij institut problem upravlenija, Sovet Ekonomiceskoj Vzaimopomoschi, Sekretariat, 1984, p 202 Translation of title: "Experience at the Organization, Planning, Financing and Economic Stimulation in the Creation and Transfer of New Technology in RGW Membership Countries" (Footnote 4) (cf Struwing H G, Kaiser H, "Management Experiences in Scientific-Technical Progress in European RGW Countries" in: GESELLSCHAFTS- WISSENSCHAFTLICHE INFORMATIONEN [Sociological Informations], AdW of the GDR, WIZ, Berlin G/2/1984 6 (1984)2)

Beside the continued development of scientific production associations, problem-oriented structured units and engineering centers have been established, e.g., in the USSR. The President of the AdW of the Ukrainian SSR, B Paton, justifies the establishment of these centers by pointing out that under the present-day transfer system it is not always possible to guarantee large-scale materialization of scientific research results in the national economy. (Footnote 5) (cf Paton B, "Engineering Centers: From Concept to Production" in: PRAVDA 3 Jan 1985 p 2) The new engineering centers at individual AdW institutes are expected to offer, on the one hand, conditions for intensive completion of planned basic research and, on the other hand, complete carefully new technologies and products, and prepare their transfer on a broad scale.

Completion of Research Goal and Purposes--Starting Point for Transfer Preparation

Basic and decisive conditions for effective transfer are research results with high scientific-technical quality and strong innovation character. These results must meet the immediate needs of society, must correspond to the requirements and possibilities of the national economy and society.

Our tests show that the following conditions are especially important for the transfer possibility of research results:

- goals and purposes that are developed jointly with practice partners;
- completion of critical written records that contain clear explanations/ decisions/plans for use and transfer of research results;
- critical and effective completion of initial project defenses;
- development of application possibilities and economic effectiveness of planned research results, and their gradual elucidation during the research process.

Initial project defenses have special importance for the guarantee of usefulness, for the start of preparations and for transfer into practice. This

assumes that the potential user of research results and in certain cases also representatives of local and central authorities are included in the initial project defense, that there is critical discussion about purpose and goal of the project, and that arrangements are made for the actions necessary for utilization of the planned results and for preparing their transfer into practice. Analyses of defense procedures at higher education institutions (Footnote 6) (cf Goerig M, Wenzlaff H, "Defenses--Effective Instruments of Successful Research Work" in: DAS HOCHSCHULWESEN, Vol 6/1984 p 153) point to a number of problems that appear precisely during the phase of initial project defense.

Preparation and transfer must begin with the development of goals and purposes. Schedules and planning decisions for the preparation of transfer must therefore be part of the written accounts that are obligatory. In case of relatively high uncertainties in regard to the transfer of research results into practice, as it is often the case in basic research, statements should at least be made on possible fields of utilization, potential users and on the estimated importance of the results for these sectors/users. That does not mean that in basic research the definition of purpose is to be oriented exclusively on the immediate transfer of research results into practice, because this would considerably limit the effectiveness of basic research. Economically successful, useful research results can often not be recognized or evaluated as such during the basic research phase. It is only in the course of a gradually developing research and evaluation process that economically successful, useful results can be selected. If possible or available problem solutions are too strongly limited during the basic research phase, it can happen that projects are eliminated that are economically precisely the most effective. For this reason, basic research results that have not yet been utilized in social practice, constitute "an important scientific-technical solution potential that increases the reaction capacity and flexibility of the national economy in market and resource situations." (Footnote 7) (cf Maier H, "Problems of Strategy Development Under the Conditions of the Scientific-Technical Revolution" in: "Increasing the Contribution of Basic Research to the Innovation Strength of the GDR National Economy, GESELLSCHAFTSWISSENSCHAFTEN-Academy of Sciences of the GDR, Berlin GW 28 - 5 May 53)

Our investigations showed clearly that interest of practice partners in research results can only be aroused only if the partners can recognize the quality and effectiveness of the results. For early and binding work on transfer it is important to establish, as concretely as possible, a definition of utility effectiveness and potential negative effects, and of the funds required for transfer and utilization. The logical evaluation of quality and effectiveness of research results is therefore of eminent importance. These evaluations are to be made as the research process progresses and are to be based on the particular state of progress that can be evaluated each time. This is important not only for obtaining high quality research results but also for the readiness of practice partners to accept the results as early as possible. Here, the assessment of scientific quality is in no way sufficient. And this includes the results of basic research. Even if, in the latter case, the possible degree of concreteness is essentially lower, at least the tendencies of influence on certain important factors of the national economy and the importance of research results for the development of definite areas of practice should be estimated.

Higher education institutions have only limited possibilities for determining economic quantities. Experience teaches the following: The more research projects are application-oriented, the closer they are conducted at the dividing line between higher education institutions and practice partners, the more strongly and responsibly practice partners are to be included in determining economic quantities. In several of the projects evaluated, determination of economic quantities was made with active participation of practice partners, and often in true cooperation. In some projects, employers working in conjunction with higher education institutions, played a special part in determining economic effects. But in defining the latter there are frequent arguments. The blame lies in part with the fact that definitions of this kind often result in "arguments" or that the partners (on both sides) are not in a position to analyze economic effects and applications. In some cases, practice partners even demanded that the higher education institution submit requirement investigations. In this context it became obvious that the market research work of some practice partners was deficient.

In agreement with the results of analyses of the obligatory research documentation the investigations found that not enough consideration is given to the fixation of make-believe goals and to explanations for the purpose of license granting at the development of goal and purpose determinations. Obvious in this connection is also the fact that comparisons with internationally leading products are often not made in consistent fashion.

Preparation Time, Deadlines for Research Results

Not enough attention is paid, in part, to these factors during the development of goals and purposes, at initial project defenses and also in the course of research processes. Important for good time progress during the preparation phase are, especially, a parallel preparation of research and development projects and, parallel to this, preparation and realization of transfer. Whereas parallel research and development is successfully practiced in a number of projects, parallel research and planning of transfer were noticed in only a few projects. Parallel conduct of research and transfer realization is the exception. Only one single example was found; in this case, realization of transfer took place parallel to research and development with active support by local authorities. Through extensive parallel preparation work, transfer times (starting with submission of research results) of below 1 year could be achieved in several of the investigated projects (analysis transfer). Of essential importance for achieving good development times in research are the sufficiently concentrated utilization of research potential and the guarantee of larger time contexts for higher education researchers in developing their research tasks. It is noteworthy, however, that in discussions the concentrated utilization of work groups and their potentials was pointed out only rarely; and then even with the limitation that concentration should not be overestimated, that the technological development of research and the specifics of the research process should be noted.

As obstacles to achieving better development times the discussion partners mentioned especially the lack of risk readiness on the part of practice partners, and also the fact that a number of regulations (among others ordering and shipping deadlines) work against short-term or parallel preparation or realization of transfer.

The deadline for submitting research results contributes to their effectiveness. For the projects investigated, the majority of those responsible for the projects thought overwhelmingly that the submission deadline for their research results corresponds with the needs of society. The following reasons for delayed submissions of results were discovered:

--decisions are delayed for too long,

--late reactions to situations developing in practice, research work was started too late, the first research phases could have been completed more quickly,

--wrong prognosis of development tendencies by scientists.

The investigations also show that no general directions or even "recipes" can be given for speeding up the work. For each project it is necessary to investigate, with consideration for its importance for the national economy, what work speed is necessary and what the chances of realization are.

Influence of Scientists and Higher Education Directors on Transfer and Utilization of Higher Education Research Results

Our investigations prove that often great efforts and prudent action by higher education scientists are indispensable for overcoming a great number of objective and subjective problems in regard to successful transfer and utilization of research results. In principle, the coresponsibility for transfer is accepted by the great majority of higher education scientists. Clear progress has been made in recent years in regard to the influence of the higher education administration on transfer. Critical comments by scientists that some higher education administrations limit their activities too much to appeals and explanations, however, point out the necessity of further activating the influence role of administrations and of supporting scientists effectively. Frequently those responsible for projects do not have specific knowledge of potential producers, of planning and financing conditions, they do not have connections to local and central authorities that must cooperate in the decision process on transfer preparations. These deficiencies can often be remedied only by efforts consuming much time. This is true especially for sectors that have a larger number of potential users and producers for their research results so that no long-range and close cooperation with practice partners can be organized. Positive experiences in solving these problems are found in, among other places, the Soviet Union. At the Moscow Textile Institute, e.g., a special sector "economic effectiveness and transfer" supports higher education scientists in organizing the activities necessary for transferring their research results to practice partners. (Footnote 8) (cf Martynov I A, Sazin B S, "Uskoraetsa Vnedrenie Resultatov NIR, in: VESTNIK VYSSEJ SKOLY Vol 2/1984 p 31; translation of title: "Transfer of Research Results Accelerated") FRG higher education institutions take a similar approach. There, transfer departments established at several higher education institutions are considered to be very helpful to scientists. (Footnote 9) (cf "Higher Education and Economy--Possibilities and Obstacles of Cooperation" in: INFORMATION: EDUCATION, SCIENCE, Bonn, Jul-Aug 1984, Ministry for Education and Science) In the GDR, too, there are some initial experiences

in this field. The FSU, for example, has employed a special assistant in charge of supporting transfer processes. His assignment is to help in preparing the necessary decisions and in supporting the transfer organization. It has proven to be an advantage if a work group of this kind can establish relations of the most varied kind. This makes it possible for the work group to acquire specific knowledge and opportunities regarding transfer so that problems can be handled quickly.

Transfer of higher education research results to national economic practice as well as the cooperation of practice partners should not be organized according to one system, one general algorithm. This also means that it is not possible to transfer positive examples schematically. On the other hand, there are generally valid rules, conditions and experiences, and their observation is important for quick and successful transfer. They are an important basis for mastering the transfer process. Some of these rules, conditions and experiences--of special importance according to our investigations--have been presented in this article. Beside perfecting managerial and organizational conditions for developing challenging goals and purposes and for their critical evaluation as well as for consistent appraisal of internationally leading products, our main task is especially to develop the readiness, the necessary thought processes as well as the abilities for cooperation and transfer of research results among higher education scientists and their practice partners.

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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

ECONOMIC STRATEGY, ACHIEVEMENTS SYNOPSISIZED

East Berlin IPW-FORSCHUNGSHOFPT in German Vol 20 No 4/1985 pp 27-38

[Article by Prof Dr Gerd Friedrich, of the SED Central Committee's Central Institute for Socialist Economic Management: "The GDR's Economic Strategy and the Struggle Between Socialism and Imperialism"]

[Text] The economic policy of the SED in the 1980's, as decided by its 10th Party Congress and reaffirmed by the subsequent plenary sessions of its Central Committee, is characterized by the following cornerstones:

Firstly, we continue the political course of the major task--unity of economic and social policy--, we ensure the high material standard of living of the population and expand it step by step, despite the complicated reproduction conditions in view of the confrontational measures of imperialism in foreign policy and foreign trade, and taking into account the necessity of having to secure our defense due to the military threat by the most reactionary circles of imperialism.

This decision, corresponding in depth to the internal and external conditions of continued shaping of developed socialist society in our country, is linked to qualitatively and quantitatively incomparable demands on the performance and efficiency development of the national economy, in particular to the stable increase of the national income. The fact that a significant increase in growth rates was achieved (1982: 2.6, 1983: 4.5, 1984: 5.5 percent) despite limited accumulation funds, speaks for the efficiency potential of our national economy.

The good economic results, particularly those of the year 1984, caused the party leadership to state that the GDR possesses the intellectual and material resources to continue successfully the course of the major task also in coming years.

Secondly, the 10th Party Congress provided the answer to the question by which means the necessary growth rates can be achieved in the 1980's. At the center stands the close connection between the achievements of the scientific-technical revolution and the advantages of socialism. Preparing the ways and methods of transition to the type of expanded reproduction which saves resources all around, and the measures to imbue intensification of production with an extensive, stable and lasting character, is

the creative application of Marx' theory of reproduction to today's conditions of economic development in our country.

Without a doubt, preparing economic strategy was our Party's greatest theoretical achievement in the economic area on the threshold to the 1980's. Meanwhile, this theory has become the proven practice of our operations. In recent years, the economic growth of the GDR was increasingly based on the factors of intensification and increased efficiency in the economy.

Thirdly, the turbulent development of productive forces taking place internationally today is the greatest challenge of this decade in the economic field. How a country keeps up and gains ground is decisive for its ranking as an industrial nation. Thus we cannot choose the necessary degree of efficiency increase--it is unerringly decided by the international level and tempo.

Science has become a direct productive force. Connected with it, firstly, the cycle of basic research--scientific-technical production preparation--production--sales was shortened considerably, and secondly, the speed of spreading new technologies within all sectors of the national economy increased. The result is a growing dynamism of economic processes and rapid structural change, carried especially by a high innovation rate of products and technologies.

We do not overlook the arrears we still have in work productivity compared to some leading capitalist industrial countries. It is all the more necessary, therefore, that every sector, every combine and factory measure itself against international comparisons, and to deduce from them criteria for one's own desired performance and efficiency development. Erich Honecker, general secretary of the SED Central Committee and chairman of the Council of State, said that the GDR cannot live on a middle level. 1)

Fourthly, the development of the GDR takes place in close fraternal alliance with the Soviet Union and the other CEMA countries. The increasing interlocking of the GDR economy with that of the USSR and economic cooperation with the other CEMA countries form the stable basis of our own economic development.

For socialist and economic integration, joint efforts are gaining growing importance in the economic and scientific-technical field to ensure the energy and raw material base and rapid development of base technologies, such as micro-electronics, communications and automation technology, biological and genetic technologies, and higher processing of energy sources used; to introduce technologies overall to raise productivity and lower energy and material consumption; and to develop agriculture and production of high-quality industrial consumer goods.

Successful Implementation of SED Economic Strategy--Important GDR Contribution to Heighten the Influence of Socialism

It has already paid off that the Party with its economic strategy is pursuing the main directions of developing productive forces. It is the way to guarantee permanently the economic and political stability of the GDR, to strengthen its international position and reputation and, in the conflict of systems, to make a contribution to the welfare of the people through its policy so that the attraction of socialism will grow. It would go beyond the framework of this article to try to draw a complete picture of the economic processes connected with it. But a few selected questions shall be briefly outlined here.

Through rapid development of micro-electronics and their use, new means of increasing work productivity and lowering energy and material consumption were and are being achieved.

During the period between 1980 and 1983 alone, the production of electronic components and integrated switching circuits was almost doubled and the production of numerical controls was more than tripled. We are at the threshold of a complete and radical change of the technological level of many areas of the processing industry, characterized by flexible automation, integrated use of numerically controlled machines, robots and computers, as well as calculator-assisted production preparation and production control. Also to be seen are qualitatively new directions of communications and information technology, characterized by, among other things, a merging of data, text and picture processing and appropriate systems of information transmittal.

Micro-electronics have become a testing ground of the technical level of the national economy overall. While just a few years ago, the industrial level of a country was frequently gauged by steel consumption per capita, today the consumption of micro-electronic components has become an essential criterion of industrial development.

Important sources for economizing the entire reproduction cycle were opened up through purposeful substitution of energy sources. Reduction of heating oil consumption alone created important prerequisites for gaining a larger proportion of "light products" to cover fuel needs, considerably lower economic expenditures for production of heat energy (expenditures for heating oil use per caloric unit are many times higher compared to crude brown coal), and to gain more high-quality primary products for the chemical industry.

In conjunction with it, brown coal mining was further expanded from 258 million tons in 1980 to 295 million tons in 1985. Today, the GDR satisfies over 75 percent of primary energy needs from its own output of crude brown coal and natural gas production.

The processes of energy saving and energy source substitution require substantial changes in all sectors of the national economy. We succeeded

in shifting a considerable share of the goods transport from the highway to railroad tracks and inland waterways. The railroad and inland waterways share of goods transport services increased from 73.5 percent in 1980 to 81 percent in 1984. This was also helped by electrification of railroad traffic, which was advanced with great speed: in 1984 alone, 253 km of the railroad network were electrified, whereby the share of transport performance carried out by electric locomotives increased from 28 to 32 percent.

Under the reproduction conditions of the 1980's, higher processing of the energy sources and raw materials used is the decisive concept for further development of the production and export structure of the GDR. Although the GDR is only at the beginning of this process--as pointed out by Erich Honecker in his speech to the kreis first secretaries of the SED--, significant results were achieved during the first half of this decade. 2) Among other things, this is reflected in the fact that the value of the final product of the economy per 1 Mark of primary energy and raw material use has risen considerably.

Today, processing is a decisive task of every sector and every combine. It is a matter of better satisfying the requirements of the population, the national economy and exports, quantitatively and qualitatively, to translate the use of qualified work into greater growth of value, by advancing production to the highest processing stages, through higher quality of products, and through products of greater utility and more favorable volume--performance ratio.

In this process, higher processing in the basic industries is frequently the prerequisite for high energy and materials economy in the subsequent sectors. To clarify this by an example: with the construction of the converter steel mill in the hoop mill combine, almost one-third of GDR steel production was put on a new technological base. The high-quality types of steel which can be produced with this technology lead to significant energy savings and increased work productivity in the steel manufacture proper, and gives consumers the chance to reduce specific use of rolled steel by 10 to 20 percent.

Not to be underestimated for material and raw material economy is the importance of using secondary raw materials and developing closed material cycles. In addition to a significant drop in energy use and total expenditure compared to production of primary raw materials, environmental stresses are reduced and raw materials difficult to procure are being substituted hereby. In 1984, the GDR covered 12 percent of its raw material needs with secondary raw materials. For materials essential to the economy, such as steel, copper, aluminum, lead and paper, this share came to between 50 and 90 percent. Still, the possibilities are not nearly exhausted yet, since with present processing, only about 40 percent of the accruing waste product volume are covered.

At no time has the party left any doubt that the rapid increase in the production of high-quality consumer goods is the foremost strategic task

of all combines of industry. This is for two reasons: with a view to fulfilling the major task, and also because of the fact that they can be sold in many export markets for good foreign currency proceeds.

The urgency of this task becomes clear because, for years now, demand for high-quality technical consumer goods has risen along with higher incomes of the working population. In 1984, sales of industrial goods rose faster (by 5 percent) compared to a 3.2 percent increase in foodstuffs and luxury foods, and it is without doubt largely due to the fact that industry brought new products on the market in the value of 26 billion Marks and exceeded the sales target of finished product for the population by 2.7 billion Marks.

The aforementioned processes were linked to improved energy and materials economy, continued increase of work productivity, as well as efficiency of basic materials use and investments in all areas of the economy.

Increased efficiency of the overall economy achieved in 1983 and 1984 can be seen, among other things, in the fact that per unit of produced national income compared to 1980, energy use dropped to 87 percent (1983), production consumption to 89 percent (1984), freight transport performance to 82 percent (1984), and use of the labor force to 88 percent (1984). These indices show that the expenditure in material and labor was reduced considerably during these 3 and 4 years, respectively.

An exception in this balance-sheet is the use of basic materials--it rose to 104 percent (1983) per unit of national income. However, one must take into account that during this period, on the one hand, large investments had to be made available for energy source substitutions which did not effect a direct production increase and, on the other hand, the individual sectors of the basic industry had to develop their own energy and raw materials base. As is known, these sectors are characterized by a high basic material intensity. Thus the actually achieved, improved basic material efficiency is not shown in the balance-sheet.

Nonetheless, this fact underlines the necessity of making even greater efforts in order to fully satisfy this criterion of extensive intensification, also. For this reason, intensified reproduction of the funds of fixed assets is being carried out as a unit of the existing funds of fixed assets, as well as expansion of capacity, at the highest scientific-technical and economic level, and a growing share of investments must go toward rationalization. Present experience shows that the greatest effect is achieved through combining modernization of installations, use of additional new equipment, sector-specific efficiency measures, industrial robots, and process control of complex modernization solutions for entire, closed production phases.

Securing Economic Inviolability of the GDR

The economic strategy described is deeply rooted in the goals and driving forces of the internal development of socialism in our country. At the

same time, in the economic area it is the response to the intensification of the struggle between socialism and imperialism.

The economic development of the first half of the 1980's can be appreciated correctly only if one sees it against the background of the sharp class struggle and the economic war initiated by the United States. At the beginning of this decade, reactionary circles believed they could force the GDR into international insolvency through credit boycotts and various measures restricting trade. There was only one answer to this: to secure the economic inviolability of the GDR. The latest development proves that "the economy has become the major field of the class struggle of our time." 3)

Naturally, the GDR starts from the basic premise that international division of labor and peaceful trade and goods exchange for mutual advantage represents an essential element of international relations between capitalist and socialist countries, promoting and stabilizing normal political relations. But if the most aggressive circles of imperialism want to employ these trade relations as a weapon against socialist states, we must adapt to it. The attempt to bring the socialist countries to their knees economically through an arms buildup policy, embargo, numerous measures of trade discrimination, credit boycott and high interest policy, is doomed to fail from the start, especially since such a policy has met with very different reactions within the imperialist camp itself. Far-sighted big industrialists oppose it for various reasons, not least of all because it entails considerable material disadvantages for them.

The GDR is taking all necessary steps to further strengthen its economic inviolability and to expand its trade policy scope. Despite the confrontational measures, it has increased its foreign trade revenue from capitalist countries from 33 billion Marks in 1980 to 47 billion Marks in 1983 and, at comparable prices, has raised its goods sales to 128 percent, thus growing faster than industrial production. This demonstrates a growing performance and export force as an essential result of the Party's economic strategy.

This fact also gained recognition in Western industrial circles. The German Institute for Economic Research (DIW) in West Berlin came to the following appraisal: "In 1982, the GDR achieved noteworthy performances under the pressure of foreign trade problems. It transformed its trade deficit with Western industrial countries into a surplus and...reduced...its net indebtedness vis-a-vis all Western countries...After the development in 1982, the restrictive attitude of Western banks is economically no longer justifiable. If it is continued, it damages directly the balance of GDR trade relations with the West and impairs the chances of Western firms to export to the GDR." 4)

In 1985, the same Institute stated: "Meanwhile there has been a turnaround in the discussion of GDR indebtedness. After the amount of gross indebtedness had been a focus of interest for a long time, now it is the amount of credit balance..." 5)

The economic inviolability of the GDR is due to the fact that socialism possesses the power to ensure, out of its own strength, the highest scientific-technical level in all areas and to achieve its economic and social policy goals. Under the conditions of the struggle with the imperialist system, the demands on work productivity increase further and demand even stronger joint efforts by the socialist countries. It can be considered one of the fundamental characteristics of GDR economic development that the importance of economic and scientific-technical cooperation with the USSR and the other CEMA countries grows all the more, the more economic power increases and develops.

This cooperation is vital for the GDR; it is a fundamental condition of effectiveness and intensification. After all, the GDR with an export intensity of over 40 percent (based on exports in units of account in proportion to the produced national income) effects 68 percent of its foreign trade sales with the CEMA countries; 38 percent with the USSR alone. This places on our economy the task of adapting our export potential even better to the requirements of the Soviet Union. If one considers that 70 percent of GDR exports to the USSR consist of products of the metal processing industry, it is especially the combines of mechanical and electrical engineering and electronics which will have to make ever greater efforts to develop an export structure corresponding ever more to the requirements of the Soviet economy and which is effective for the GDR.

It is of great importance for the development of socialist economic integration that, like the GDR, the other major CEMA partners have also put on the agenda comprehensive intensification of production. This makes it possible to aim mutual cooperation toward this goal, also.

Such an example is the program of cooperation between the GDR and the USSR, signed on 6 October 1984 by Erich Honecker and Andrey Gromyko, covering the areas of science, technology and production until the year 2000, which initiated a new phase of overall economic and scientific-technical cooperation. Its content is aimed at those very basic questions of continued economic performance development which, in both countries, stand in the foreground and within the framework of overall socialist economic integration--i.e., further strengthening of intensification on the basis of scientific-technical progress and its acceleration.

Further Development of Democratic Centralism--the Need for Comprehensive Socialist Intensification

The economic strategy of the SED is inseparably linked with the further development of socialist planned economy, use of its advantages and driving forces, and further development of socialist production conditions.

Formation and strengthening of the combines, in particular, was a decisive step to advance the development of productive forces--to closely tie

together science and production, to create favorable conditions for a high renewal rate of products and technologies, to better control the entire cycle from basic research to scientific-technical production preparation, production and sales--and to keep up with, and gain ground in, international competition. The significant progress in effectiveness achieved in the first half of the 1980's is primarily due to the performance strength we gained through the combines. They are not only reliable partners in our own national economy, but also in international economic relations.

Since 1983, further measures have become effective in adapting the entire system of economic control and planning to the requirements of comprehensive intensification of production. The steps taken in this context are of extraordinary importance in the struggle between the systems since, in the last analysis, it is a matter of beating the imperialist opponent in economic competition through the advantages of the driving forces of socialist planned economy. It would go beyond the framework of this article to describe them individually. For this reason, I shall limit myself to one basic question.

As expressed in the resolution on further perfecting control, planning and economic accounting, all measures are based on strengthening democratic centralism. They aim at increasing the quality of central state management and planning, with a simultaneous increase in self-responsibility, democratic cooperation and creative initiative of the workers' collectives in the factories and combines, in order to fully concentrate all these forces on comprehensive intensification of production. This takes into account the fact that socialism can demonstrate its superiority only through further development of socialist production conditions and relations of comradely cooperation and mutual assistance, and can achieve the processes based thereon, i.e., permanent establishment of agreement between societal, collective and personal interests.

Further development of democratic centralism necessarily includes the ever better qualified, deliberate and systematic use of economic laws on the scale of all of society. Only in this manner will it be possible to guarantee social stability and security of basic social rights. Any implantation of capitalist competitive conditions into socialism, as bourgeois theoreticians of all shadings are trying to talk us into, time and again, can only lead to a weakening of socialism and ultimately, to put its very being into question.

Here, the dispute is not over the existence of goods production and the relation between goods and money in socialism, and their ranking. Whoever underestimates goods production and its categories, misses from the start essential opportunities to bring into accord, and make effective, societal, collective and personal interests for the progress of society. It concerns how to make use of them, namely as an object of state economic management, embedded in political-educational, administrative and economic methods of planned economic control, and not as the "free play of market forces."

One of the most complicated tasks in the transition to the type of intensively expanded reproduction, saving resources overall, consists in directing the interest of collectives and individuals and self-responsible and creative action toward the highest economic effectiveness, and to increase the responsibility for quality and quantity of work and its results. This raises new questions of planning and balancing, economic accounting and use of goods-money relations, performance assessment and remuneration according to performance, and others, and far-reaching changes in the entire economic mechanism must be implemented. These newer, greater tasks demonstrate that a further development of democratic centralism is needed.

This is the very goal of the measures of the resolution on further perfecting control, planning and economic accounting, which Erich Honecker at the 7th session of the SED Central Committee characterized as follows: "We start from the premise that our national economy possesses a modern and precisely subdivided management system. Responsibility on all levels is clearly established, for the ministers, combines and their plants. Even in socialism, there can be no effective economic management without clearly established responsibility, since the creative work of human beings is the most important prerequisite for positive results. With the steps we are taking now we improve conditions for it, especially for flexible action in the interest of all of society. The plan sets the scales. On the basis of the plan, with the performance assessment according to the major indices of net production, profit, finished goods for the population and for export, initiative is directed morally and economically at the decisive tasks. In this way, many things influencing expenditure and results become even clearer. The economic value of good utilization of funds of fixed assets, or even an innovative idea, appears in a much clearer light. Cost accounting and analysis gain in importance. Industrial prices reflecting the true economic expenditure help precise calculation. In short, it is a matter of linking even more closely planning and economic accounting. In this way the economic interests of combines, enterprises and their collectives are directed even more effectively toward the requirements of the state and the national economy. This strengthens democratic centralism in our practical economic life." 6)

During the first half of the 1980's, high economic results were achieved through the unity of economic and social policy, purposeful implementation of economic strategy and perfecting control, planning and economic accounting directed at this goal. Guided by this economic strategy, the GDR proved its strength even in the struggle between the systems. Even the bourgeois media had to take this into account in their commentaries. While at the beginning of this decade it was still believed that one could simply dismiss our economic goals as unrealistic, during recent years the number of voices has grown affirming the high performance strength of the GDR.

WIRTSCHAFTSWOCHE wrote in 1981: "There is agreement among Western experts that the growth rates set at the 10th SED Party Congress are unrealistic,

even if the forces of the GDR economy were fully utilized. From its analysis, the prognosis can be deduced that an economic growth of about 3 to 3.5 percent of the GDR economy would be a realistic goal...The situation would be different only if, early on, the GDR had adopted fundamental reforms of its economic system, making more room for the part played by the market and economic and monetary instruments." 7)

By contrast, in 1983 one could read in the same journal: "It is highly uncertain whether the ambitious plans can really be carried out. Although, to the surprise of all the experts, last year's result showed that success cannot be written off automatically,... the problems to be solved are enormous, nevertheless." 8) If one removes the embellishments, it means: while in 1981 we were only given a chance with market-economy mechanisms, in 1983 all experts were astonished by the successes.

The same year, the German Institute for Economic Research expresses recognition for the economic power of the GDR even more clearly: "Meanwhile it has proven its economic efficiency--not least of all with the aid of improvements in the economic mechanism." 9)

The results of the Party's economic strategy during the first half of the 1980's set the starting points which will be subjects of consultation at the 11th SED Party Congress for future development during the period 1986 to 1990. The major task of unity of economic and social policy will determine the coming 5-year plan, also.

FOOTNOTES

1. Compare Consultation of the General Secretariat of the SED Central Committee with the First Secretaries of the Kreis Leadership. Paper by Secretary General F. Honecker, in: NEUES DEUTSCHLAND, Berlin 2/3 Feb 1985, p 2.
2. See ibid.
3. G. Mittag, Theoretical Generalization of Experiences of Development by the Combinés for Increased Performance in the National Economy, Particularly in Utilizing the Qualitative Growth Factors. Speech at the GDR Economic Science Conference in Karl-Marx-Stadt 1983 on 29 and 30 Sep 1983, Berlin 1983, p 28.
4. DIW WOCHENBERICHT, West Berlin, 5/1983, p 58.
5. DIW WOCHENBERICHT, 5/1985, p 59.
6. Seventh Session of the SED Central Committee on 24 and 25 Nov 1983. F. Honecker, In Battle-filled Times We Successfully Continue the Proven Course of the 10th Party Congress for Peace and Socialism. From the discussion speech. Berlin 1983, p 37f.

7. WIRTSCHAFTSWOCHE, Duesseldorf, 24/1981, p 55.
8. WIRTSCHAFTSWOCHE, 34/1983, p 46.
9. DIW WOCHENBERICHT, 32/1983, p 402.

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ECONOMY

GERMAN DEMOCRATIC REPUBLIC

NUCLEAR POWER PLANT RESIDUAL HEAT CONVERTED FOR DOMESTIC USE

Thermal Energy for Greifswald

Leipzig ENERGIETECHNIK in German Vol 35 No 6 Jun 85 pp 201-204

[Article by Dr Reiner Lehmann and Dr Alexander Schoenherr, engineer, VEK [state owned combine] Bruno Leuschner Nuclear Power Plants Combine, Greifswald: "Greifswald City Heat Supply From the VEK Bruno Leuschner Nuclear Power Plants." Lecture V2 delivered in Dresden on 9/10 October 1984 to the 16th Colloquium on Power Plant Technology, Energy Conversion Section of Dresden Technical University. Manuscript received on 20 March 1985.]

[Text] 1. Basic Principles

The directive of the 10th SED Congress established for all GDR enterprises and combines the task of implementing substitution of solid and liquid fuels in the heat supply sector and creating all material prerequisites for solving this task.

Thus, the primary focus of the work is on efficient use of energy, substituting crude brown coal for solid and liquid fuels and increasing the efficiency of energy conversion processes by increased use of waste heat and expanding cogeneration.

On the basis of this, objective scientific-technical studies with the goal of finding solutions to use the facilities of the Greifswald nuclear power plant by means of cogeneration for the heat supply of Greifswald City were implemented in the VEK Bruno Leuschner nuclear power plants, Greifswald, and the VEB Energy Combine, Rostock, in cooperation with scientific-technical facilities of the coal and energy industries, the VEK Nuclear Power Plant Construction and universities and advanced schools.

In cooperation with the Soviet main designer of the nuclear power plant and the turbine designers of the Kharkov works the necessary designs were developed in an extremely short period of time in order to realize heat output from the nuclear power plant. Parallel with this, designs for the heat transport line over a distance of about 20 km were developed in particular by the VEB Energy Combine, Rostock, the Dresden Institute for Energy Supply and the VEB Heat Plant Construction, Berlin, and all related scientific-technical and design problems were solved.

The accomplishments of scientists, designers, workers and engineers in many sectors resulted in the fact that after a construction period of 1 year supplying a large part of the areas of new construction in Greifswald City with heat from the nuclear power plant could be initiated on 27 December 1983.

The technical solution which was created to do this deserves closer scrutiny especially since on an international scale increasing importance is also attached to the output of heat from existing nuclear power plants. This approach is based both on problems of fuel substitution and better utilization of nuclear fuel and on questions of reducing environmental pollution caused by conventional heat supply facilities.

2. Development of Greifswald City'. Heat Requirements

Until the end of the 1970's the heat requirements of Greifswald City were met by heating, oil, hard coal, briquettes and crude brown coal. The climate-based heating requirements were characterized by 3,580 heating degree days and 241 heating days.

In this connection 20°C was used as the average room temperature and an average outside temperature of 12°C as the heating limit.

The value of consumer hookups in the future will reach 300 MW (thermal). The structure of the consumers is as follows:

--municipal sector	55 percent
--industrial sector	28 percent
--agricultural sector	17 percent

That is, when construction is finished about 9,000 dwelling units, the majority of industrial enterprises and a greenhouse facility which is yet to be built will be incorporated in the district heating supply from the nuclear power plant. From this it follows that the heat requirements are very heavily influenced by the municipal sector, and consequently also very extensively dependent on outside temperatures. Because of the influence of the Baltic Sea, in respect to the GDR average, there is a negligible increase in temperature in the period from October to December and a negligible lowering of the temperature from January to March. The diurnal variation line in the heat requirements shows only very slight fluctuations for the heating period. There is no evidence of a nighttime dip which is typical of GDR conditions.

3. Technical Solution for Heat Output

In choosing the technical solution for heat output from the existing facilities of the VEK Bruno Leuschner nuclear power plants (KKW) the basic points of departure were that

--an example must be created for an economic supply variant for congested areas from the nearby condensation nuclear power plants using a cogenerator,

--occurrence of reduced electrical output in the nuclear power plant during peak periods must be precluded,

--gearing into the K-220-44 saturated steam turbine is not possible, that is, for each turbine at the most 75 MW thermal output can be obtained via the bleeding point,

--a stable supply must be guaranteed under all conditions. Consequently all blocks must be included in drawing off heat.

As a result the variant with three-stage heating water preparation was selected which is admitted from bleeding points 3, 4 and 5 of the turbosets.

It should be mentioned at this point that limiting the amount of heat which is to be withdrawn to 75 MW per turbine is structurally determined by the steam velocities which are permissible in the bleeding points. The manufacturer permits velocities of 50 to 60 m/s, and up to 70 m/s for a brief period of time.

Since in any event a high degree of erosion wear and tear occurs in the bleed lines because of operation in the wet steam sector and since the erosion danger is proportional to the square of the droplet velocity in the wet steam flow, the bleeding points must not be loaded beyond this maximum permitted value.

The amounts bled which occur during heat output in addition to the projected preheating operation amount per bleeding point to a maximum of 5 to 6 percent of the volume of flow through the corresponding turbine stages so that at the turbine rated load the stage pressures change only slightly as a result of the decreased flow volume and thus do not result in any dangerous overloading of the flow section.

As Figure 1 shows, a maximum heating water temperature of 180°C is achieved with the fixed withdrawal of steam (heating water pressure 2.86 MPa) [megapascals]; this temperature guarantees a proper supply of hot water and also in the user sector makes possible the production of steam up to 0.3 MPa and thus permits connecting up the majority of the industrial users who are located in the supply region.

Moreover, in the event of no bleeding operation of the turbosets, there exists as an additional safety measure the possibility of reducing the live steam and in order to observe the quality parameters of the heating water the possibility of partial operation with reduced live steam even with partial load operation of the turbine.

A preheating system is made a part of one turbine per block so that when the first expansion stage of the four blocks which are in operation is completed 4 x 75 MW thermal capacity will be available.

Inclusion of blocks 5 to 8, which are under construction, is necessary in order to have available for the heat accumulators the load capacity which with full utilization of the systems with 300 MW thermal is necessary in order to avoid reduced output of electricity at peak periods, to achieve the highest possible degree of supply safety and, if necessary, to be able to develop reserves for expanding the present supply sector beyond the current capacity limit of 300

MW. Appropriate studies are currently underway in which thoroughly favorable prerequisites for a further substantial increase in the amount of heat available from the nuclear power plant exist in the presence of demand of appropriate magnitude. In this connection it should be mentioned that in blocks 7 and 8 turbines from the Skoda Co are being used whose structural design in the bleeding point sector makes possible the output of 120 MW (thermal).

Heat transport from the KKW to Greifswald City is accomplished by means of an NW 800 transit line covering a distance of more than 20 km. In a heat transfer station which was erected there the heat is fed into the existing city network. The return flow temperature of the transit line is 80°C and after the greenhouse facility which is planned for is put into operation and connected into the return flow it will reach 60°C. During winter operation speed-regulated pumps are available to circulate the heating water and throttle-governed pumps in the summertime when the load is less. The maximum quantity circulated is 2,600 tons/hour which, if the forward and return flow temperatures are taken into consideration, produce at present a maximum thermal capacity of 300 MW which must be carried.

The thermal capacity to be carried increases when the return flow temperature decreases; the heating line itself likewise contains significant feed reserves whose utilization, if necessary, is possible with comparatively small additional investments.

Initial filling of the system and refeeding are done by means of deionate from the nuclear power plant; soda lye is added to the deaerated deionate to minimize corrosion resulting in a pH value between 8.5 and 9.5. The filling capacity is 28,500 m³.

4. Guaranteeing Radiation Protection and Nuclear Safety

When operating the heat supply system nuclear safety and radiation protection must be guaranteed for every operation. In accordance with the applicable GDR laws special authorization documentation on heat output from the Greifswald nuclear power plant was submitted to the State Office for Nuclear Safety and Radiation Protection. The authorization documentation contains an analysis of incidents and the description of the special safety and monitoring systems. The most important technical measures to guarantee radiation protection are described below:

--Maximum pressure in the heating water system is 2.9 MPa, the minimum pressure on the intake side of the circulating pumps is 0.7 MPa. A special pressure regulating system in the heating water system guarantees that the average pressure is always at least 1.5 MPa. The average pressure in the heating water system is thus always higher than the highest pressure of the bleeding steam from stage 3 of the saturated steam turbine which is 1.1 MPa.

Since the heating water system always has a higher pressure than the heating steam which is taken from the turbine bleeding points there can be no transfer of bleeding point steam from the second circuit of the nuclear power plant into the heating water system. If the pressure of the heating water system approaches the pressure of the bleeding steam, the appropriate heat exchangers are automatically shut down.

--The activities of the bleeding steam and the inside water of the heating water system are continuously monitored. If the activity values reach the maximum permissible values, the appropriate heat exchangers are automatically shut down. The maximum permissible value for heating water was set at 25 Bq/liter.

By way of comparison mention can be made of the fact that the legally permissible concentration in drinking water under continuous use is 370 Bq/liter (the values mentioned refer to Co 60).

--The heat exchangers are constantly monitored for tightness by measuring the electrical conductivity of the condensate from the bleeding steam. Since the heating water system has a higher pressure than the bleeding steam, and the heating water system has a pH value between 8.5 and 9.5 because of the addition of soda lye, leaks can be detected in the heat exchangers.

--The steam which is necessary to deaerate the fill water and the water added is produced from the heating water in a special system which consists of a preheater and an expander (Figure 1) in order to preclude in this sector, too, the theoretically possible introduction of radioactivity from the second circuit of the nuclear power plant.

--The second reforming of the heat in the heating line in the Greifswald transfer station and the control of activity in the city network constitute an additional safety factor.

The analysis of incidents for the heat supply system, consisting of the heat exchanger facility in the nuclear power plant, the heating water pipes to Greifswald and the heat exchanger facility in Greifswald, showed that incidents which exceed the incidents previously established for the safe operation of the Greifswald nuclear power plant cannot be caused by this system.

5. Decreasing the Reduced Output of Electricity

Avoiding reduced output of electricity during peak times of demand for electric power is an additional essential premise for the design of the overall system, especially in the measurements and control technology sector.

It was previously stated that the return flow temperature of the heating water is a maximum of 80°C. Through the addition of hot forward flow water directly into the return flow line of the heating water the return flow can be used as a heat accumulator. The increase in the return flow temperature is limited by the maximum permissible temperature of the heating water on the intake side of the circulating pumps of the system which is 130°C. Technically the use of the return flow of the heating water line for the purpose of the heat accumulator is solved by having installed on the line between the nuclear power plant and Greifswald four mixing stations in the form of short circuits between forward and return line with flow-restricting equipment.

In line with the length of the peak period of demand for electric power, the necessary heat requirements and the flow time of the heating water from the mixing stations to the nuclear power plant the operation of the mixing stations

between forward and return flow is optimized by an electronic computer system in such a way that in the nuclear power plant at the optimum there is no reduction in the output of electricity, or only the slightest reduction.

In the design solution for the heat supply a system of $6 \times 500\text{-m}^3$ tanks to store the heating water is provided to compensate for the change in volume of the heating water during starting and stopping operations and during temperature changes caused by output fluctuations. As needed, water is fed into the system from these tanks and water is taken from the system for storage. The 500-m^3 containers are designed for maximum temperatures of inside water of 130°C as low pressure reservoirs. By loading these low pressure reservoirs with a mixture of heating water from the forward flow and return flow of the system they are filled with 130°C water outside the peak demand period for electric power. In the peak demand period for electric power the low pressure reservoirs are emptied in order to minimize the reduced electric output of the nuclear power plant.

For the sake of completeness it should be noted that as a result of cogeneration there is an improvement in the specific heat consumption of about 200 kJ/kwh, to which an additional electric capacity of 3 MW corresponds. Of course, this thermodynamically conditioned increase in output meets only a fraction of the reduced output that actually occurs so that realization of the previously mentioned measures is a primary determining factor for reducing or avoiding reduced output.

6. Initial Operating Experiences

The heat supply for Greifswald City in the 1983-1984 heating period was accomplished with an output of 50 MW thermal.

Proof of the basic serviceability, especially of nuclear safety, was provided and basic findings and practical experiences were gained which will be used in the further expansion of the supply system.

These are, for example, detailed findings in respect to facilities behavior and effects which can be expected from the heat output. The instruments for the storage operation to compensate for the reduced electric output in rate period 1 were still not available. It was possible to specify that the reduced electric output without any storage operation is per MW thermal output 0.17 MW with bleeding operation and 0.32 MW when operating with live steam reduction.

In this way essential primary data for subsequent optimization processes were obtained.

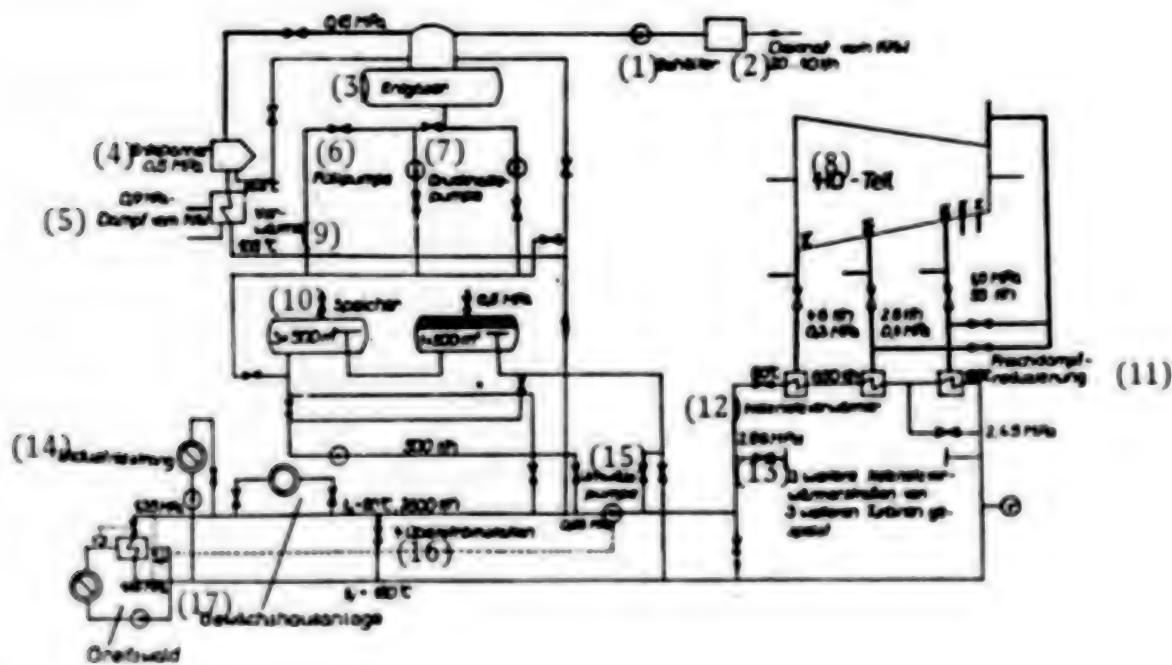
In the nuclear power plant and in the Greifswald territory the necessary measures are nearly complete in order to have 150 MW thermal capacity supply-ready in the 1984-1985 heating period.

7. Summary

Since 27 December 1983 for the first time heat from the bleeding points of the turbines of the KKW has been used for the public heat supply. The first

operational experiences were collected, they are positive and confirm the correctness of the technical solution chosen. This also furnishes the proof that it will be possible to use cogeneration at all future GDR nuclear power plant sites.

Figure 1. Basic Schematic of the District Heating Supply



Key:

1. Tanks	10. Reservoir
2. Deionate from the KKW 20...40 tons/hr	11. Live steam reduction
3. Deaerator	12. Heating network preheater
4. Expander 0.5 MPa	13. 3 additional heating network pre- heater systems fed by 3 additional turbines
5. Steam from the KKW	14. Line to industries
6. Filling pump	15. Circulating pump
7. Pressure maintenance pump	16. Overflow station
8. HD section	17. Greenhouse facility
9. Preheater	

Socio-Economic Aspects Viewed

Leipzig ENERGIETECHNIK in German Vol 35 No 6 Jun 85 pp 204-207

[Article by Dr Dieter Hermann, economist, Central Institute for Nuclear Research, Rossendorf, Energy Section: "Socio-Economic Aspects of Further Expansion of the District Heat Supply." Lecture V6 delivered in Dresden on 9/10 October 1984 to the 16th Colloquium on Power Plant Technology, Energy Conversion Section of Dresden Technical University. Manuscript received on 5 February 1985]

[Text] 1. Introduction

In the context of long-term strategic considerations the question arises whether in the heat-supply sector nuclear energy will be only a substitute for fossile fuels which are becoming scarce and expensive, or whether it can achieve significance which ranges far beyond that for the development of productive resources. A qualitative analysis of this problem reveals far-reaching comprehensive relationships under which social factors of further expansion of the municipal district heating supply play an important role.

2. Nuclear Energy as a Qualitatively New Primary Energy Source for the Heat Supply

Nuclear energy is an industrially usable primary energy source which in contrast to fossile primary energy sources makes possible and demands, respectively, energy production which in terms of substance is as isolated as possible from the biosphere, and which under future use of the breeding process can be placed on a practically inexhaustable fuel basis. Consequently, its fundamental strategic potential consists in not only simply replacing fossile primary energy sources, but making possible on a long-term basis a qualitatively new stage in the production of industrial energy for the reproduction process. The latter means that society's industrial energy needs will have to be realizable not only at roughly comparable, but significantly lower cost and on new larger scales than is basically possible on the basis of fossile primary energy sources.

In the use of nuclear energy for the heat supply, given such premises attention focuses especially on

--guaranteeing a high-level basic assets economy, that is, the smallest possible specific investment costs and a high degree of utilization of the facilities,

--favoring broad integration not only of today's, but also of future heat-intensive processes and

--creating good prerequisites for the necessary solution of the nuclear fuel problem in industrial nuclear energy.

The normally low degree of centralization and socialization of the heat supply, the strong seasonal dependence of heating requirements, the high safety demands on nuclear energy and the substantial specific cost of heat transport are some of the factors which today strongly limit the effective use of efficient nuclear heat sources and extensive use of them. On the basis of this situation various strategic lines are being developed for the use of nuclear energy in the heat supply which can be succinctly characterized roughly as follows:

a) For the most diverse reasons a further substantial increase in the degree of centralization and socialization of the heat supply is not considered possible or advisable. To the extent fossile primary energy sources increase in cost, the use of nuclear energy for increasingly more unfavorable conditions,

that is, as a rule for sites with increasingly less centralization, is to become economically more competitive in respect to conventional variants.

In this the effort is made to counteract the growth in specific investment costs, which tend to be linked with decreased performance, because of increasing simplification of the plant and its greater nearness to the consumers. Both required a lowering of the energy source parameters, including aspects of safety, so that there is thus at the same time increasingly narrow specialization on straight space heating and the preparation of water for general use for the specific local conditions. Figure 2 shows the design values of the hot water forward flow temperature of various large nuclear heating projects as a function of their unit output.

b) In addition to realizing nuclear heat supply projects at the few sites which currently have favorable conditions, special priority attention must be directed at increasing the degree of centralization and socialization of the heat supply in connection with measures of efficient energy use, decreasing environmental pollution and improving people's working and living conditions. A key issue in this is the increasing integration of industrial and municipal heat consumers in the cities and the development of complex-territorial heat supply systems insofar as this is possible in the context of the social goals mentioned and the available financial sources. The use of nuclear energy will appear on the agenda to a greater degree only if powerful nuclear heat sources can be put into operation economically, that is, if further centralization and regional grouping of neighboring complex-territorial supply systems can be sustained by the resultant possible economizing of the nuclear energy plant itself.

To what extent the one or the other strategic line can be more firmly implemented depends on many factors, not least of which for example is the probably rate of the additional cost increase for fossile primary energy sources. Very strong cost increases could favor trends toward substituting for fossile fuels "at any price" and thus force the way to a). At the latter's theoretical end point there is a conglomerate of relatively small nuclear heat sources which are isolated from one another and are highly specialized. These will not be in a position to have a positive impact on the future establishment of new heat-intensive technologies, for example, in connection with the necessary closing of material circuits or the intensification of the production of mineral and agricultural raw materials, and furthermore they will severely limit the degrees of freedom for any future solution to the nuclear-fuel problem of industrial nuclear energy.

For route b) socialist society offers theoretically good conditions since the restrictions on ownership in the case of production means have been abolished. Nevertheless, it is still by no means a perfectly clear matter today to what extent the route of centralizing the heat supply can actually be traveled for the present. Its present theoretical end point would be the development of regional integrated heat systems which handle their basic load requirements from central, efficient general purpose nuclear heat sources, that is, plants with relatively high heat carrying parameters. The strong degree of centralization and the high parameters favor the integration of both new heat-intensive

user processes and additional qualitatively new heat sources. The latter can prove to be very important for solving the nuclear-fuel problem.

3. Driving Forces for Developing Complex-Territorial Heat Supply Systems

The degree of socialization of the heat supply, which has in fact been achieved today, within the municipal region is not an expression of an optimal situation, which corresponds to current conditions, of centralization of heat production and extensiveness of heat distribution, but rather it is at best a reflection of the historical development of these conditions. In this not only technical-economic questions definitely played and continue to play an important role, but rather ownership and administrative limits, technical and social traditions and other factors are likewise reflected.

Historically, centralized heat supply systems first developed in the industrial sector.

The causes of this are clearly to be sought not only in the comparatively favorable economic conditions, characterized by high demand density and the frequently ideal production possibilities in conjunction with technological power and heat processes. The fact that the quality of heating has a direct influence on working conditions and productivity, on efficiency and quality of production, on questions of accident and fire prevention and in certain technological processes on their implementability in general can hardly be rated as lesser. Thus, with the centralized heat supply extraordinarily high qualitative requirements can be met.

In the municipal sector the conditions for realizing expansion of centralized heat supply systems are as a rule not as favorable as in industry, and even the relationship of utility value characteristics of the heating systems and the efficiency of the reproduction process is not as urgent and compelling as in the production sector. The greater heating comfort, which is linked with the district heat supply, in contrast to, for example, furnace heating with solid fuels must for the most part be acquired through higher social costs. Only in the case of comprehensive new housing construction at large sites does the district heat supply at present achieve comparable or better economy whereby, of course, the utility value differences of both systems remain largely unconsidered. The decision in favor of comprehensive housing construction and thus for the district heat supply is, however, no longer a matter of calculating the economy of individual enterprises, but rather an expression of the political assertion of overall social interests. Accordingly, the expansion of the municipal district heat supply in the GDR took place and continues to take place primarily in connection with the economic site distribution of productive resources and associated new establishments and essential expansions of individual cities, respectively, with the comprehensive reconstruction of metropolitan downtown areas which were destroyed in the war and to a very special degree with the SED's housing construction program, that is, with the solution of the housing question as a social problem. This produced the situation that at present approximately one-fifth of all dwellings in the GDR are equipped with the district heat supply. Figure 3 shows the development of the shares of dwellings with modern heating systems.

However, in respect to the future efficient use of nuclear heat sources it will not be enough to build new individual subsystems of centralized heat supply. Rather it is a matter of changing existing structures and subsystems and integrating them into comprehensive heat supply systems which by and large encompass the entire municipal territory in question. That is a much more complicated task which can only be realized under the effect of very strong economic and social driving forces in the advance area of broad use of nuclear heat sources. Measures for efficient energy use and environmental protection are basically considered as such driving forces to increase the degree of centralization and socialization of the heat supply.

Of course, their effectiveness in this connection depend very much on the essential scope of desired improvements and basic economic conditions. At present it can only be a matter of selectively making great progress by concentrating resources and means, that is, as it were, to develop the reserves of the first and second access. Current replacement of heating oil can be viewed as an example of this. Still no greater impulse in the direction of large scale comprehensive solutions of the heat supply can by necessity emerge from these selective measures. With increasingly greater exhausting of reserves in the future, however, such comprehensive solutions will become to a greater degree an unavoidable necessity. A driving force of another kind is the growing need of people for further enhancing living comfort, particularly the convenience of residential heating which today is manifested as increasing solvent demand for individual modernization solutions on the basis of solid fuels and for gas and electrical heating systems. If there is success in directing these important economic and social capacities at retrofitting old construction with overland heat or toward intermediate steps which anticipate that development, then strong driving forces for raising the degree of socialization of the heat supply in harmony with personal and social interests become effective. The gradual comprehensive conversion of old dwellings which overall are predominantly heated by furnaces to the district heat supply by means of appropriate technological solutions which will have to be especially developed, for that would at the same time be an effective contribution to decreasing environmental pollution and an important stimulus to accommodate the associated growth in heat capacity requirements by means of more efficient energy use, increased use of waste heat, deeper return flow cooling and other intensification measures largely from existing systems. Thus, retrofitting old construction with district heat played the role of a territorial and a functional connecting link for increasing the degree of socialization of the heat supply.

4. Questions About the Effect of Social Factors as a Driving Force for Expanding the District Heat Supply

The demand for good and maximum comfort in residential heating can play a role as a driving force for the further socialization of the heat supply if it is not a matter of a temporary fad, but rather if objective requirements for shaping living conditions of broad segments of the population are expressed in it. Qualitatively this question can be positively answered to the effect that people's living conditions must be in basic harmony with the level of development of the material productive resources. Increasing demands in level of education, creativity and availability of the workers under the conditions

of the scientific-technical revolution over the long term and in the final analysis require as a social norm the kind of residential heating which offers the optimal prerequisites, that is, which independently of the rhythm of living and work at any point in time guarantees the desirable comfortable room atmosphere, and which also is effectively maintenance free. The quantitative determination of these conditions, primarily the timely development of the requirements in interaction with the material possibilities and conditions of satisfying them, represents an important task which must be solved.

One other point of view concerns the relationship of dwelling and heating. As a rule the heating requirements are taken to be an imminent element of the housing requirements and thus are not considered separately. In the following it is not simply a matter of heating, but of heating on a different qualitative level. This requirement for greater heating comfort absolutely deserves to be considered explicitly without forgetting in the process its practical and logical subordination to the requirements for housing. This is important primarily in respect to the mutual relationship between the housing construction program and the development of heating comfort. That housing construction program is dedicated to the goal of solving by 1990 the housing question as a social problem, that is, to satisfying the justified basic requirements of all the people for housing at an appropriate standard. This objective expresses the best possible harmony of personal and social interests under present-day conditions. By 1990 or soon thereafter, however, this appropriate level will still not be able to include without exception high heating comfort even if the housing construction program has made the greatest progress yet in expanding the municipal district heat supply.

On the other hand a qualitatively different situation will result if the housing construction program will have been fulfilled and if the basic requirements for housing all across society can be satisfied. Only then will greater separation of the requirement for high heating comfort from the basic requirement for housing under socialist conditions be objectively possible and necessary if in large measure other conditions develop for the harmony of personal and social interests. This means that the further timely realization of the housing construction program and fulfilling its objective social targets are one of the most important essential prerequisites for the future continuation of the main task in its unity of economic and social policy, including satisfying housing requirements which continue to grow qualitatively and quantitatively. By utilizing the advantages of socialist production conditions there can be systematic orientation toward solutions which embody the harmony of personal and long-term total social interests; this is then ultimately a contribution to the fact that nuclear energy in the heat supply sector can on a long-term basis do more than substitute only for fossile fuels.

Figure 2. Forward flow temperature t_v at different large nuclear heating projects (KHW) as a function of unit capacity Q (according to IAEA [International Atomic Energy Committee]--TC [Technical Committee]--483).

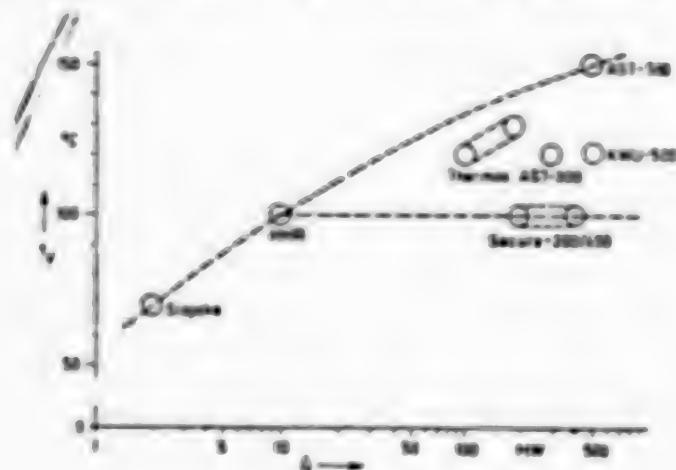
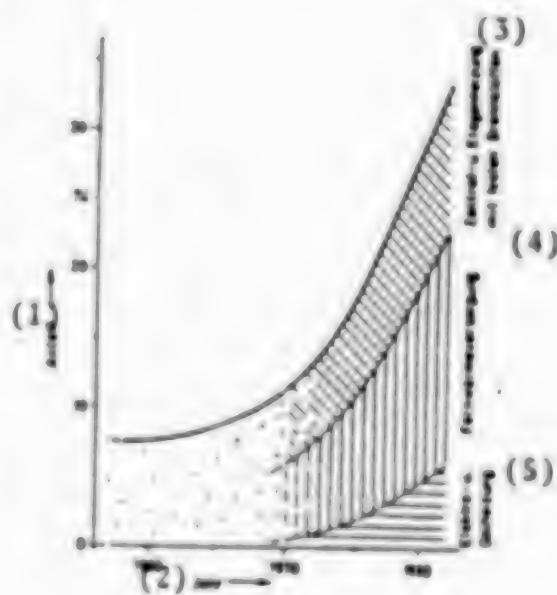


Figure 3. Development of the shares of dwellings with modern heat in the GDR housing inventory (according to the 1977 Statistical Yearbook, Energy Statistics for 1982)



Key:

1. Share	4. District heating supply
2. Year	5. Electrical and gas heating
3. Central and floor heating with solid fuels	

ECONOMY

POLAND

BAKA ON ECONOMIC REFORM: THREE YEARS AREWELL ISSUE

Warsaw RZECZPOSPOLITA in Polish 5 Dec 85 supplement REFORMA GOSPODARCZA No 63
p 1

[Statement by Wladyslaw Baka, former Commissioner for Economic Reform: "After Three Years"]

[Text] Notice to our readers: Beginning with the next issue, the supplement REFORMA GOSPODARCZA will be published by the Planning Commission of the Council of Ministers and by RZECZPOSPOLITA.

Three years ago, on 26 Oct 1982 to be exact, the first issue of REFORMA GOSPODARCZA appeared, co-edited by RZECZPOSPOLITA and the Office of the Commissioner for Economic Reform. We were concerned with two matters at that time: 1) that those involved in economic and social activity be ensured of systematic and full information concerning regulations and other legal documents as well as current government decisions regulating the performance of the economy, and 2) that enterprises be able to share their experience and to present the achievements of other socialist states in improving their economic performance.

Today, three years later, it is probably safe to say that the initiative to publish the Supplement was well-conceived. The Supplement has fulfilled its basic functions. It was helpful in a period characterized by a high level of legislative activity, the institution of new categories and concepts into economic life, the initiation of new practices in the relationship between enterprises and administrative organs in the government and also between the enterprises themselves. Such is the opinion of the editorial staff of the supplement. The evaluation, of course, lies in the hands of the enterprise directors, the people involved in social and economic activity, and our readers.

On 12 Nov the term of office of the Commissioner for Economic Reform expired. The activity of the Office of the Commissioner is also coming to an end. In the name of all the workers in that office, I would like to take this opportunity to sincerely thank our readers for their interest in our paper, and also the co-editors of RZECZPOSPOLITA for their heartfelt and constructive cooperation.

MILITARY

GERMAN DEMOCRATIC REPUBLIC

NEW SOLDIERS' DECORATIONS, MERIT BADGES DISPLAYED

East Berlin VOLKSARMEE in German No 50 1985 [signed to press 9 Dec 85]
p 5

[Unattributed article: "Soldiers' Decorations"]

[Text] The socialist competition for members of the National People's Army and the GDR Border Troops designated as "11th Party Congress Soldiers' Achievement--Always Prepared for Combat for Peace and Socialism" is part of the mass initiative of the working population of the German Democratic Republic aimed at the overall strengthening of socialism. Its long and glorious tradition goes back to the first central competition conducted among the members of the ground forces of the National People's Army in the summer of 1956 for the title of "best platoon in combat training" and reaches all the way to the present innovators' movement. Its goal is to fulfill the class mission outlined at the 10th SED party congress. It is primarily designed to involve members of the armed forces, of the Border Troops and civilian employees in creative competition in their daily round of duties for the purpose of fulfilling their political, military, economic and scientific mission. This competition is being conducted in the various units and installations on a man-to-man and collective-to-collective basis under the appropriate conditions. Competition for soldiers' decorations plays an important part in the overall competitive setting.

Over the past several weeks and months, VOLKSARMEE has received a number of queries, primarily from enlisted men and non-commissioned officers in the various units, branches of service and installations, regarding the best-of-unit and merit badges as well as the marksmanship cords. The lively interest in their revised design proves yet once again that the competition for these soldiers' decorations is something of a mass phenomenon. For this reason, VOLKSARMEE decided to publish not only the new designs but also

the conditions under which they may be obtained. In doing so, VOLKSARMEE also responds to another frequently asked question: conditions for obtaining the soldiers' decorations remain unchanged in that they continue to be based on directives No. 02/82 and No. 03/82 of the minister for national defense on socialist competitions as laid down in the 17 September 1984 version and in the appropriate implementing instructions.

Best-of-Unit Badge

Enlisted men and non-commissioned officers without subordinates may be awarded the title of "best-of-unit," if they perform their duty according to regulations; if they attain high marks in the primary training disciplines and satisfactory marks in all others and if they maintain their combat equipment, their weapons and other equipment in very good condition.

They must also have received all other decorations appropriate to their rank; they must play an active role in the social life of their military collective; they must assist other members of the armed forces in their training and make their expertise available to them. There must be no disciplinary charges pending against them. Those competing for the "best-of-unit" badge must be models of military discipline and order. This includes their satisfying the demands of communist morality and their making economic use of the materials entrusted to them. The same general provisions apply to non-commissioned officer, warrant officer and officer trainees taking part in the best-of-unit competition.

Superiors up to the company command level, for example, will compete for the title of best squad leader, best first sergeant, best platoon leader or best company commander. To be sure, they can only be awarded that title, if the unit under their command wins the "best-of" title.

Reservists may receive such an award after at least 3 months of reserve duty as long as they meet the abovementioned conditions, with the exception of the attainment of soldiers' badges.

Those meeting these conditions during the course of the new training semester will be awarded the new badges introduced on 1 December 1985. If someone wins the badge for a second, third or fourth time, the figure at the bottom of the badge is altered. If the requirements are met five times, that individual is awarded the National People's Army achievement badge. A seven-time winner will receive the National People's Army bronze medal of merit; nine-time winners will be awarded the corresponding silver medal, and 12-time winners will receive the gold medal. Only "best" titles and repeated awards won after the 1982-

1983 training year will be considered for achievement awards and National People's Army medals of merit. Above and beyond that, all members of the armed forces who are awarded a "best-of" title will receive a cash bonus which in the case of enlisted men will amount to 100 marks.

Decorations awarded to enlisted men and non-commissioned officers later than 1 December 1982 will be exchanged pursuant to directive No. 05/85 of the minister for national defense--but with priority being given to the issuance of new awards. Warrant officers and commissioned officers who won the title after the abovementioned date will receive the badge with the appropriate number on it ; but this applies only to members of the armed forces who are still on active duty.

Qualification Badges

Badges for superior military service in categories III, II and I are awarded to:

- enlisted men, non-commissioned officers, warrant officers and commissioned officers assigned in accordance with their rank to duties such as the operation, maintenance or repair of combat, control or maintenance equipment;
- commissioned officers who are personally responsible for such equipment as part of their duties;
- enlisted personnel specialists as well as non-commissioned, warrant officer and commissioned officer trainees.

The regulations governing the award of such badges are the following:

- politically aware performance of duties and at least a satisfactory rating in fulfillment of the requirements for special technical and military schooling as outlined in the training program;
- superior performance in the operation, maintenance and repair of combat, control and maintenance equipment;
- conscientious fulfillment of military regulations regarding the avoidance of premature equipment breakdown and the economic use of materials.

This military decoration, too, calls for intensive study of army regulations, for systematic training and for participation in extra-curricular military activities. The badges are awarded on the basis of successful completion of qualifying examinations. They include one-time cash awards (also in case of successful completion of re-examinations) based on the particular achievement category. All those in category III must take new examinations every 2 years and those in categories II and I must take the examinations every 3 years.

The new badges introduced on 1 December 1985 take account of the great variety of specialized activities in the National People's Army and the Border Troops of the GDR. The design is the same but the symbols and colors are different. There are in fact 13 specialized activities taken into account in addition to the standard badge issued to members of the National People's Army and the Border Troops of the GDR.

These badges are awarded whenever a new qualification has been met; whenever a new performance category has been attained or if the individual has successfully passed a reexamination.

Members of the armed forces who are assigned to positions which do not afford them an opportunity to qualify themselves may exchange their badge for one bearing a different symbol, if they qualified for it or passed their reexamination after 1 December 1982.

Marksmanship Cord

The marksmanship cord is awarded to:

- enlisted personnel and non-commissioned officers depending on branch of service for firing from tanks; for motorized infantry firing from APC's and combat vehicles and with infantry weapons; for direct shot regular caliber artillery firing and for launching antitank guided missiles.
- enlisted personnel and non-commissioned officers of all other branches of service, special units and services as well as to specialist enlisted personnel and non-commissioned officer, warrant officer and commissioned officer trainees for firing with their specific weaponry.

The new design of the marksmanship cord emblem takes account of the different types of weapons. In addition to the standard emblem, there also are emblems depicting the turret weaponry of tanks, APC's and combat vehicles and the field artillery. There also is a standard emblem for the Border Troops of the GDR.

The conditions for the award of the marksmanship cord are the following:

- a rating of "very good" on the last shooting or firing exercise (last rated exercise) which is part of the annual or semi-annual training cycle and a rating of at least "good" on all other exercises;
- constant operational readiness and maintenance of weaponry in accordance with regulations;
- exemplary political and military conduct and leadership.

The competition guidelines stipulate that the marksmanship cord be awarded for the initial fulfillment of the requirements and that each three times the requirements are met again one acorn be added to the decoration. The cord and/or acorn may be awarded at the conclusion of the first half of the training year to enlisted personnel and non-commissioned officers; to non-commissioned officer trainees at the conclusion of their training cycle and to warrant officer and commissioned officer trainees at the end of the academic year. The requirement for being named for the award is participation in all rated firing exercises as well as verification of results in the company firing log and in the platoon combat training record.

Intellectual Achievement Award

The intellectual achievement badge is awarded to all those individuals who are able to show that they possess a good and practice-oriented command of Marxism-Leninism, the scientific world view of the working class, and thorough familiarity with the documents of the SED and the FDJ. Regular, active participation in the activities of the circle of young socialists and utilization of the information acquired as part of political education provide the individual with a good foundation for obtaining the award.

In accordance with the conditions laid down by the secretariat of the central council of the FDJ a written paper on an assigned topic must be submitted to qualify for the bronze, silver or gold medal. A meeting with the applicant is then held on the basis of the paper he has submitted. As a rule, these discussions are held at the end of the first half year of training. Their purpose is a careful examination of the qualitatively different intellectual capabilities, of the individual's powers of persuasion and the soundness of his arguments to determine the type of badge to be awarded. One can only be proud of those achievements which were hard to come by.

To concern oneself in some detail with Marxism-Leninism during the course of the training semester; to acquire a thorough knowledge of the literature of the party of the working class and of the socialist youth organization is to make one's own, small and intensely personal contribution to the mass initiative in preparation for the 11th SED party congress.

Military Sports Medal

The conditions for obtaining the military sports medal also are very demanding. After all, its owner may be looked upon as a soldier capable of the highest physical performance on the battlefield. This is why anyone aiming for this medal must first have won the gold medal of the GDR in sports and the level II medal in swimming. Depending on age, four or three obligatory exercises (i.e. obstacle course, 3,000-meter run, hand grenade target and/or long-range target throw and pull-ups) and one optional exercise are required. The conditions are based on the specifications contained in the military physical education guidelines.

Everyday practice teaches us time and again that regular physical exercise during leisure hours in groups or small teams has enabled a good many of us who never thought it possible to meet the requirements necessary for obtaining the military sports medal. The FDJ basic organizations should therefore join the Army Sports Association in developing a broad-based physical training movement.

GDR Sports Medal

The GDR sports medal ("Prepared for Work and the Defense of the Homeland") is awarded in bronze, silver and gold. The requirements are not quite as high as those for the military sports medal. The bronze medal in particular thus is an award which may be conferred on wide segments of the population. The bronze medal, reflecting its mass character, may be won by meeting the following requirements: obstacle run, pushups, hop-skip-and-jump and broad jump, air rifle firing and endurance run. Those desiring to win the silver or gold sports medal must meet the following additional requirements: swimming, short-distance run, broad or high jump, shotput or throw and one optional discipline.

The GDR sports medal ought to be a desirable goal for each and every member of the armed forces and of the Border Troops.

9478
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POLITICS

GERMAN DEMOCRATIC REPUBLIC

FRG WEEKLY ASSESSES POLITBURO CHANGES

Hamburg DIE ZEIT in German 6 Dec 85 p 3

[Article by Joachim Nawrocki, head of the Berlin editorial staff: "Honecker at the Zenith of Power"]

[Text] "A real trapper dies in the saddle," says a GDR artist living in the West, who is knowledgeable about the hierarchy of GDR functionaries. That is his answer to the question of whether Erich Honecker, SED general secretary, chairman of the GDR State Council, chairman of the National Defense Council and meanwhile 73 years old, could some day retire voluntarily, though step by step, from his offices. He gave this answer only a few hours before the time when the 75-year-old Army General Heinz Hoffmann, the GDR defense minister, died of acute heart failure in East Berlin.

On Hoffmann's birthday three days earlier there had been no indication of any illness of the red general. The SED Central Committee did wish him in writing "good health with all our hearts." But the Karl Marx Order which Erich Honecker bestowed on him--for the second time--was received by him standing up in a small ceremony. The 65-year-old NVA political chief, Heinz Kessler, who deserted to the Red Army at the Eastern front in 1941, was made the new defense minister.

Heinz Hoffmann's death in the saddle shows that changes in the top leadership of the SED, the Politburo, as a general rule can be compelled by the physical death of a man--or by a political accident. Age or illness are hardly a decisive factor for someone remaining in the Politburo or not.

Honecker's leadership team is not the youngest. State Security Minister Mielke will be 78 years old this month, Erich Hueckenberger and Alfred Neumann, both 75 years old, continue to hold office, one of them as chairman of the Party Control Commission, the other as deputy chairman of the council of ministers. Willi Stoph, the chairman of the Council of Ministers, is 71; Horst Sindermann, the president of the People's Chamber, is 70; both have been regarded as in questionable health for years. Kurt Hager, 73, and Hermann Axen, 69, the secretaries for culture and science and for international liaison also are no longer among the youngest.

Risky Predictions

Of the 21 members of the Politburo, almost half are of retirement age. Nevertheless quick and drastic changes are hardly to be expected. There is no way to predict them. Speculations on changes in the GDR leadership are always a matter of luck.

For example, DIE WELT as early as January 1976 had definitely predicted the end of Erich Mielke on account of his poor health ("East Berlin relieves its powerful espionage chief"), but he still continues in office. DER SPIEGEL two weeks before the latest Central Committee plenum on 22 November was certain that Mielke would be relieved at long last and that fate would also now overtake Joachim Herrmann, 53, who is responsible in the party for agitation and propaganda. Moreover, Wolfgang Biermann, 57, general director of Zeiss, could move up into the Politburo as a candidate.

Nothing of that turned out to be true. Instead Herbert Haeber, 55, responsible for West work, and SED East Berlin Bezirk chief Konrad Naumann, 57, left the Politburo allegedly on account of illness. The first secretaries of the industrial Bezirks of Magdeburg, Karl-Marx-Stadt and Erfurt, namely Werner Eberlein, 66, Siegfried Lorenz, 55, and Gerhard Mueller, 57, were co-opted into the Politburo.

Only Herbert Haeber, who maintained intensive contacts for many years with West German politicians of all parties, is really ill. He is said to have not only cancer but recently is said to be no longer mentally fully competent. Those in the know refer to it as "nervous disorder." Konrad Naumann also did temporarily step aside but this involved primarily his predilection for alcohol.

Under the influence of alcohol Alois Braeutigam, Bezirk first secretary in Erfurt from 1958 to 1980, had finally caused such desolate conditions in his sphere of responsibility that he was replaced by Gerhard Mueller. He put the house in order again and thus established his suitability for the Politburo. Since then Braeutigam has been chairman of the People's Solidarity, a comparatively unimportant institution.

Egon Krenz, only 48 years old, who more than ever is regarded as Erich Honecker's potential successor, allegedly also is fond of alcohol, the same applies to Harry Tisch, 58, the chief of the FDGB, the unified labor union federation. But for both of them this is apparently no grounds for dismissal and also for the firing of Konrad Naumann from the Politburo other reasons were more important than his penchant for the bottle or other private escapades. The Berlin party chief stole the wife of the writer Hermann Kant while the latter was in the hospital following a car accident and gave her, the actress Vera Oelschlegel, the Theater in the Palace of the Republic as a reward. Cultural ensembles no longer provided any pretty young arists for Naumann's small festivities to protect them from improper advances. All that did not fit in with the ideas of correct socialist conduct but was overlooked for Naumann. What finally finished him off were his criticism of Honecker's policies and the more or less subtle attempts to gain more and more power and influence.

Thus Naumann tried to introduce new, harder standards in culture and science. As early as 1982--Egon Krenz was still FDJ chief--Naumann was behind an FDJ cultural conference in which a young agitator who will be heard of in the future, namely Hartmut Koenig, accused GDR writers they had for themselves gone far beyond "the border between capitalism and socialism over which they travel to the West with our passport"; he spoke of lack of principles and "betrayal of our homeland and our ideals." Cultural Secretary Kurt Hager, who had not given his blessings to the speech ahead of time, only with difficulty was able to calm things down and later on had to soothe feelings in the name of the Politburo after Naumann had again scolded artists and scientists in harsh abusive language.

It remained Naumann's favorite idea to become, if not Honecker's successor, then at least Hager's. Since their joint work in the FDJ Central Council, he regarded the Honecker protege Krenz anyhow on his side and under his influence. For a long time it appeared as if Naumann enjoyed support in Moscow--when he, e.g., dismissed the Strauss billion for the GDR as a "Marshall Plan," criticized Honecker's church policy and sensed domestic policy dangers in the GDR exit practice, which, in his opinion, was too generous. In the meantime, the new party chief in Moscow, Mikhail Gorbachev, has shifted the personnel switches in Moscow; this may also have weakened Naumann's position in the GDR.

Cautious Staging

At any rate it remains peculiar how cautiously Naumann's downfall was initially staged. In the decisive Central Committee plenum in which Naumann lost his seat in the Politburo, there was still talk of health reasons and of recognition of work performed. Two days later when Naumann also lost his position as Berlin Bezirk secretary he was unceremoniously "released" from his function without justification and without thanks. Is it possible to explain the initial caution by the wish to first wait and see how the Berlin comrades reacted? At any rate, Naumann was a well known and influential figure, more colorful than most of his colleagues.

With Naumann Erich Honecker got rid of his most potent opponent. Egon Krenz now can only bet on Honecker. The latter's position is stronger than ever. And that is also very useful to him, for the government in Moscow functions again and the Soviet demands on the GDR economic strength will increase.

Honecker's closest confidants now include Willi Stoph, who has considerable backing in Moscow; Hermann Axen and the economic expert Guenter Mittag; then the former FDJ functionary Joachim Herrmann and Siegfried Lorenz; furthermore the former editor in chief of the party newspaper NEUES DEUTSCHLAND, Guenter Schabowski, who has now taken over the East Berlin party organization, replacing Naumann; and finally Werner Jerowinsky, 58, and Guenther Kleiber, 54, whom Honecker brought into the Politburo in the spring of 1984.

Of course, the common part with the FDJ, which Honecker also headed from 1946 to 1955, must not be overestimated. The FDJ, like the party organization, is the cadre crucible of the SED. The organization regenerates itself from within. Lateral entrants from science, industry and administration who achieve highest

party positions are rather rare. The up and coming generation of course also appears quite meager, a close study of the SED personnel reveals. People with character and intellect can hardly be found, which, of course, is also a consequence of the selection criteria. Not the individualistic thinkers, the imaginative doers are in demand, but the unconditional parrots, the adaptable careerists.

Even now the top party leadership is regarded as a "weak brigade." Walter Ulbricht and the angular-faced comrades of his team were much more diligent and also more honestly convinced of their cause. Today the only concern is the safeguarding of the power, protection of the organization and the solution of the most urgent daily problems.

Some have their doubts even as regards Egon Krenz. According to position and career he is the potential Honecker successor. As was Honecker, he was FDJ chief, is secretary for security questions and was educated in the Soviet Union for higher duties. But does his manner and his intellect really mark him as the suitable successor? It is conceivable that Honecker will make him chairman of the State Council of which he has been a member since 1981 after the 11th SED Congress this coming April, but that he, Honecker himself, will retain the reins as SED general secretary as long as possible. He, too, probably wants to die in the saddle.

Of course there had also been doubts as to the suitability of the successor when Erich Honecker succeeded Ulbricht in May 1971. Then he rather quickly gained self-assurance and image, always seeking what was feasible without jeopardizing the power monopoly of the party.

In cultural policy the reins were loosened a bit, but tightened again after the Biermann furore although not quite as much as Naumann and others would have wanted to. Contrary to all expectations, the 9th Party Congress in May 1976 did not adopt any social improvements; on account of the general disappointment they were announced nonetheless a few days later by party, labor union and council of ministers. Agricultural policy bet on increasingly bigger production units and the separation of animal and crop production; the fiasco resulting therefrom required a revision of the agricultural policy.

The attempt to control purchases in the Intershop and the West mark credit balances of GDR citizens by introduction of "Forum" coupons was soon tacitly dropped. The church received promises concerning nondiscrimination of practicing Christians which thus far have not been kept.

Contrary to all propaganda, many prices for consumer goods were raised; but too drastic increases were then claimed to be errors of subordinate offices. The more generous approval of exit applications was stopped as quickly as it had been introduced. Many GDR citizens who do not want to leave their state are deported--such as the songwriter Wolf Biermann and the peace fighter Roland Jahn.... Others who make dozens of exit applications must struggle along for years in the GDR without income.

Thus Honecker's policy is by no means consistent, straight, conceptionally logical. Ulbricht was different here, too. Not even Honecker's socialization

policy is without breaks. The nationalization of the semistate enterprises and of the producing crafts and the pressure on the private service enterprises to join cooperatives after 1976 was again followed by promoting private retail stores, restaurants and craft enterprises: "Baker closed--baker open." That was a policy of trial and error, expensive but not without success. The GDR now represents the economically most potent, domestic policywise most stable and foreign policywise most influential alliance partner of the Soviet Union in the socialist camp.

On the occasion of the 36th anniversary of the founding of the state, this 7 October, Erich Honecker wrote in Moscow's *PRAVDA* that the GDR for a decade and a half has been consistently adhering to raising step by step the material and cultural standard of living of the people based on a high rate of development of production and its efficiency, of scientific-technical progress and the growth of labor productivity.

Between the lines, that signified two things: What the Soviet Union under party chief Gorbachev apparently is dealing with somewhat more seriously because the accelerated economic and social development is now regarded as an objective necessity, that has been happening in the GDR for a long time. Namely, and that is the second point, for a decade and a half--that is to say: since Walter Ulbricht's replacement by Erich Honecker. Ulbricht's slogan "Learning from the Soviet Union means learning how to win" is now only a bad memory in the GDR. The GDR and its representatives have become more self-assured.

The GDR citizens do see the improved standard of living but they continue to complain about the restricted opportunities for travel. They can travel to the West only as pensioners or for urgent family matters. Travel to the East Bloc countries is limited by strict foreign exchange regulations. Improvements occur only very gradually. Lately anniversaries of religious orders are treated like urgent family matters for monks and nuns; this is a "decisive breakthrough," a Bonn politician jokes. Herein can be seen the limits of what is possible in the GDR.

Undoubtedly Honecker has tried with his policy to win over the people. If a person has to retire, who would want to be forgotten as quickly as were Ulbricht, Brezhnev, Gomulka and all the others? But in that respect he has had little success. On the contrary, there is a widespread mood which is articulated in the sentence: "We haven't noticed that we were taken in by Honecker."

When he promised realistic plans, when he announced that no one can consume more than he produces, when a cultural easing seemed to be in the offing at the Eighth Party Congress in 1971, that is where Honecker was given an advance of confidence which he has lost in the meantime. The plans have remained as unrealistic as ever, the GDR indebtedness has continued to grow, the cultural policy has been at least inconsistent and, in place of farsighted planning, funds were wasted for all possible anniversaries and socialist competitions, which could have been applied more effectively in other places.

Narrow Limits

Whoever has insight, whoever has to straighten out the many small and big troubles also finds out every day about the discrepancy between the stories in the newspaper and what actually happens. True, in other Bloc states, not least in the big fraternal country, many more hair-raising things happen but that is only small consolation.

Erich Honecker is at the peak of his power. But he has found his limits--and they are perhaps narrower than he likes. They are drawn by the primacy of maintaining power, by the ideology, by the political and economic system, by the Moscow center of power and not least also by human nature--socialist man for the time being remains a dream. Changes in the top leadership will not have too much effect here, not in terms of domestic policy, not in terms of foreign policy and not in terms of Germany policy. They are power plays of the innermost circle, hardly anything else. Constellations at best can change over the long term, over the very long term. And even then good intentions are not at the same time the good deed.

There has been speculation that the departure of the West expert Herbert Haeber from the Politburo could have an adverse effect on the SED Germany policy because it now lacks its most important expert. However, there is no danger of that. There are enough people in the organization who possess sufficient knowledge and contacts. They include Politburo members Guenter Mittag and Hermann Axen, the financial expert Schalck-Golodkowski, the departmental director in the foreign ministry, Karl Seidel, attorney Wolfgang Vogel, but also Ambassador Hans Voss, the presumed successor of the GDR representative in Bonn, Ewald Moldt. The scientists Max Schmidt and Herbert Bartsch should also be mentioned in this connection--and not least also Honecker himself who is visited by a constant stream of West German politicians. And if there are gaps in the SED's knowledge, then these gaps are undoubtedly closed by traveling politicians and businessmen, be their names Strauss, Brandt, Lafontaine, Beitz or whatever else.

Thus the latest shuffling of chairs in the GDR top leadership will remain without great effect. However, in terms of cultural policy, Konrad Naumann's downfall, according to GDR talk, could have at least one significant consequence: Herbert Kant is now working on a novel entitled "Der arme Konrad" (Poor Konrad).

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POLITICS

HUNGARY

CULTURAL FORUM: UNOFFICIAL MEETINGS, FINAL EVALUATION

Official Stand on Unofficial Cultural Events

Budapest MAGYAR NEMZET in Hungarian 24 Oct 85 p 5

[Article by P.V.: "Dialogue Outside the Walls"]

[Text] Now in its second week, the forum on European culture is supplemented by quite a few official--and unofficial--programs. The daily press has reported regularly on preparations for the international art show, philatelic exhibit, series of movie premieres, and assortment of television programs, as well as on the events of the forum's first workweek in the form of a public plenary session.

In the days following the opening of the forum on European culture, there were also unofficial "supplementary programs" in Budapest. At an international press conference held on the evening the forum opened, a spokesman for the Hungarian delegation discussed the Hungarian attitude toward those programs. Certain news agencies and the correspondents--those granted credentials at the Budapest forum--for quite a few large newspapers devoted a lot of space to the Hungarian standpoint expounded there. One or another of the delegation heads who took the floor last week referred to the Hungarian press spokesman's statement and diplomatically expressed the view that the success of the forum could be guaranteed only if "what happens at the forum can be debated by others outside the conference center."

Obviously, the individual delegations have radically different ideas about the form and content of these debates outside the conference hall. Such meetings and exchanges of ideas got under way, namely, on Tuesday afternoon, as the Hungarian daily papers reported. At the invitation of the Hungarian Association for Visual and Industrial Arts as well as the forum's Hungarian national committee, the artist members of the delegations which came to Budapest took part in a friendly and informal get-together at the Kossuth Club of the Society for the Dissemination of Scientific Knowledge, and during the 6 weeks of work in Budapest other artistic associations will also arrange similar exchanges of ideas. On these occasions, the foreign visitors to our capital can meet with members of Hungarian cultural life who are not delegates to the forum, talk with them, and swap views on creativity, the unity and variety of European culture, and the exchange of cultural goods, in short, on all those topics which occupy the forum's center stage.

These encounters serve to make us better acquainted with each other's artistic workers and to discover points of contact. It is to be hoped that the standpoints heard during the debates arranged by the artistic associations--in short, by these social organizations--will be just as interesting to the reporters from the world press here in Budapest as the handful of likewise unofficial programs held last week outside the walls of the conference center.

Final Evaluation of Forum Impact

Budapest NEPSZABADSAG in Hungarian 25 Nov 85 p 7

[Article by Ervin Gyertyan: "Culture, Europeanness"]

[Text] The forum on European culture is coming to an end. And although we can still say nothing certain about the shape of the end product, it can be asserted that the cautious hopefulness with which we regarded the conference beforehand was justified. Regardless of the genesis, content, and character of the closing statement (which, of course, is not at all a matter of indifference) and regardless of the list of joint proposals (which, at the present moment, cannot be implemented for this or that reason, mostly financial reasons) for cultural rapprochement, we can give a positive evaluation to this exchange of ideas.

This was the first attempt to have such a broad spectrum of diplomats, creative artists, scientists, representatives of government and culture (between whom a potential--not inevitable--dividing wall stands) sit down at a table. And even now it can be said that a viable and exemplary format was created for a series of discussions which may benefit both diplomacy (but we could also call it international political detente) and culture (creation, dissemination, cooperation). It made clear at the same time that there is a need for dialogue between the citizens of dissimilar social systems not only in politics, not only in technology, not only in specialized branches of science, but also in culture. One of the conditions for the advancement of all mankind in our time (alongside preservation of each person's principles, convictions, ideas) is our ability to learn from one another. The reconciliation and "exchange" of ideas is not simply a "task" to be checked off or some kind of scheme but a mutually enriching flow of truly humane and humanistic thoughts and values, a standing opportunity--open to everyone--for peoples and societies to become genuinely acquainted with one another.

It was finally confirmed how much inspiration and guidance for that work is given by this old continent--which, perhaps not entirely without foundation, regards itself as the cradle of modern culture--to those who self-assertively profess to be the sons of peoples and fatherlands but Europeans (or heirs of Europe) as well. After 6 weeks of persistent and painstaking work, this recognition was earned by the diplomats committed to European culture and by the writers, artists, and scientists who assumed the role--unusual for them--of cultural diplomats. In accordance with their beliefs and convictions and in various ways, they made every effort to restore to Europe the concept of Europe--as a token of tolerance, respect for values, and development of a critical mentality.

We talk about optimism and cautious hopefulness: I do not believe we have grounds for more than this. The success of this conference lies much more in the mapping

of problems and in becoming more familiar with the other side's arguments than in ironing out differences of opinion and in resolving conflicts. But this is no small thing in itself. There were debates, hard-hitting debates, caustic confrontations, too. Some questions remained open, and the forum had moments which we could have gladly done without. Yet it would have been naive, self-deceptive, and utopian to expect more from this trailblazing conference, the first of its kind. We must rejoice in the debates--as long as they do not degenerate into mudslinging and baseless personal remarks--because there is no other way to honest and spirited rapprochement (or to appraisal of the limits of rapprochement). Reflected in the overwhelming majority of speeches given here was the concern and sense of responsibility for the interests and the mission of a culture which is the most effective tool and medium of mutual understanding and confraternity of peoples.

One of the conference's memorable moments came when--in connection with the situation of national cultures which is, unfortunately, very troublesome even today--it suddenly emerged what sort of conduct is required in relationships between nations. Ivan Boldizsar cited a warning--valid to this very day--by Gyula Illyes. "It is my opinion and my experience," wrote Illyes, "that tact is more important than anything else in the nationality question. It is necessary because it is the only sensible way in which inescapable national haughtiness and ruinous national intolerance (to be shunned at any cost) can be overcome." This perception, which stems from the depth of historical experiences of the Hungarians and the peoples living next to them, tallied with the forum's highly responsible declaration.

This harmony is satisfaction and joy for us and one of the manifestations of the cultural forum's Europeaness as well.

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POLITICS

POLAND

SOCIALIST EDUCATION MINISTERS MEET IN KRAKOW

AU221612 Warsaw TRYBUNA LUDU in Polish 19 Nov 85 pp 1, 2

[Text] How should young people be educated and brought up in order to be protected from the consequences of ideas hostile to socialism--this question was the theme of all the speeches made by participants in the conference for education ministers from socialist countries and representatives of education authorities in countries which have embarked upon the path of socialist development.

The conference is being held in Krakow from 18 to 22 November. The main subject of the conference is the role of schools in the contemporary ideological struggle. This is already the sixth international conference which has brought together representatives of states from whom the education and upbringing of young people is closely connected with the instilling and consolidation of socialist ideas, and with the struggle for social progress and peace throughout the world. Previous conferences--beginning in 1975--have taken place in Moscow, Sofia, Budapest, Berlin, and Havana.

The Krakow conference is being attended by delegations from Afghanistan, Angola, Bulgaria, Hungary, Vietnam, Guinea-Bissau, the GDR, Kampuchea, South Yemen, Korea, Cuba, Laos, Mozambique, Nicaragua, Poland, the Soviet Union, Czechoslovakia, and Ethiopia.

On the first day of the conference, which was [word indistinct] by Joanna Michalowska-Gumowska, minister of education and upbringing, Deputy Premier Zbigniew Gertych greeted delegates on behalf of the PZPR Government. He stressed, inter alia, that the upbringing of young people, and the preparation of youth for employment and the fulfillment of civic duties is a matter of great concern for the parties and governments of the socialist community.

In all the speeches that were made, it was pointed out that a characteristic feature of the contemporary world is the intensification of the ideological struggle between socialism and imperialism. And this struggle extends to the education system. Schools, in fact, have a particular role to play in the struggle. Schools furnish younger generations in the countries of the socialist community with socialist social and moral values, with a scientific world view, and prepare young people for adult life. A young person's consciousness,

it was stressed, is very malleable and easily influenced in both positive and negative ways. The ideological values instilled in children and young people during the period of their physical and psychological development constitute the most enduring elements of the world view held in later, adult life. That is why socialist schools must also take into account the course of the ideological struggle when executing the tasks as signed them. Young people must be taught to distinguish the methods and directions of activity used by forces hostile to our system, and to oppose views hostile to socialism.

A Bulgarian representative spoke about the need to establish a dialogue of an informal kind with the younger generation, one which takes into the account the realities of life in the younger generation's native country. Speaking in a similar vein, a Hungarian delegate stressed that schools cannot work in isolation, that their work should not be divorced from life, and that they should not present young people with an idealized view of the world, for such things led to passivity and frustration among the younger generation. The generation which is at present being taught in schools must be ready to discharge its civic duties at a turn of the century: this generation must be convinced that the stronger socialism is, the more certain its future becomes--this was the main point put forward in the speech made by the head of the GDR delegation Margot Honecker, GDR minister of education.

Representatives of countries embarking upon the path of socialist development, among them Afghanistan and Angola, told of the difficulties which attend the creation of a socialist democratic education system and the elimination of illiteracy.

Later conference sessions will be devoted to discussing the changes introduced into the education systems of countries attending the conference during the period 1983-85. It is expected that reports will be presented on the implementation of the plan for comprehensive cooperation in education and the pedagogical sciences during the period 1983-85. Reports on the main lines of cooperation to be adopted for the years 1986-1990 are also expected.

Representatives of Krakow's political and administrative authorities, among them Jozef Gajewicz, PZPR Voivodship Central Committee first secretary, and Tadeusz Salwa, mayor of Krakow, also attended the first day of the conference.

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POLITICS

POLAND

SOCIALIST EDUCATION MINISTERS END MEETING

AU261406 Warsaw TRYBUNA LUDU in Polish 22 Nov 85 p 2

[Bohdana Gajdeczkowa report: "The Conference of Education Ministers From Socialist Countries Ends"]

[Text] The 18-21 November Krakow conference of education ministers from socialist countries has ended. The conference, which was attended by 19 countries, was devoted chiefly to the role of the school in the present ideological struggle.

Representatives of our community and of countries embarking upon the road to socialist development stressed that the opponents of the socialist system seek through ideological struggle to influence the development of attitudes and awareness of children and youngsters. In the struggle for the hearts and minds of young people it is the school that plays a leading role, Joanna Michalowska-Gumowska, minister of instruction and upbringing, said and added that this struggle has been imposed on the socialist countries.

The conference also discussed the changes in the educational systems in the past 2 years. In the socialist countries these changes have sought to promote the development of general secondary education and in the countries embarking upon the road to socialist construction--Nicaragua and Kampuchea, for example--they have sought to liquidate illiteracy and to build a democratic system of instruction.

The documents of the conference discuss the position of the participants on all relevant issues and define the basic lines of comprehensive cooperation on education and instruction in 1986-90. The documents provide for setting up the council of experts to promote research into selected issues of education in individual countries. Joint research projects and exchanges of teachers and scientific workers will continue.

The conference addressed an appeal to world nations to halt the arms race and to defend peace. The eighth conference of the education ministers will be held in Mongolia in 1987.

The conference participants toured the complex of schools of electricity in Krakow and studied the monuments of our national culture. Ion Sucha Beskidzka they watched a mountaineering dance performance by the children of the Male Padhale ensemble. [as received]

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POLITICS

POLAND

POLITYKA EDITOR VIEWS PARTY PROGRAM

AU121301 Warsaw POLITYKA in Polish 7 Dec 85 p 5

[Article by Jan Bijak, chief editor of POLITYKA: "The Leaven of Collective Expertise"]

[Text] I am afraid that so-called extensive sections of the public have only a partial knowledge of the party program. Readers or television views who follow the course of political affairs have quickly realized that the second ideological conference was an important event for the party because it related to the party program, which is the fundamental document for the party. The initial speech by the PZPR first secretary was an essential ideological statement and not a formal invitation to discuss the program. Some 500 people of importance--not only in the Central Committee headquarters building--were invited to attend the ideological conference, and it is obvious that the PZPR used it as a launching pad for the largest political campaign of the next 6 months--the preparations for the PZPR Congress.

The "partial knowledge" that I mentioned at the beginning of this article is a result of the fact that not much is known about the conference discussion. This was inevitable, which is a bad thing, because the liveliest exchanges of views took place in problem groups and covered a multitude of issues, which were at times very detailed, and because the party program that was discussed is far from completed, despite the fact that much work has been devoted to it. Let us be more accurate: After the party program has been publicly discussed next year the party congress will give the program its ultimate form. The program materials distributed among the conference participants were still not ripe for such public discussion, and precisely the ideological conference was expected to help draw up a program version ripe for public evaluation. As Wojciech Jaruzelski said, the conference was expected to become the leaven of collective expertise. I think that this expectation was fulfilled.

I listened to speeches at the plenary sessions and participated in the session of Team Five that dealt with the development of people's socialist rule. The team discussed formal issues such as the construction of the program, its extensive volume, and its language, which is incomprehensible in places. It also discussed less formal issues such as whether it is necessary for a party program to describe prospects for breeding fresh-water fish. Team members argued about various formulations and their contents. They argued

whether the formulation "the coalition system of government" is better than the formulation "the allied system of government." I decidedly prefer the former formulation because nothing can be said against it and because it is more extensive and makes possible the participation in government of groups that want to cooperate because of the community of interests (coalition), without having to be benevolently disposed as suggested by the term "alliance." Team members also discussed whether the program should stress the separation of the Catholic Church from the state or whether the lay nature of the state should be emphasized. They discussed whether tolerance should apply to differing ideologies or to the people who profess them, and whether our attitude toward believers is more important than our attitude toward the institutions that are guardians of faith. The party program states that the Patriotic Movement for National Agreement represents the most extensive formula of agreement, but does not this better apply to the idea of self-government within which most varied interests are reconciled and within which citizens' participation can be realized on the most massive scale?

I have cited just a few examples but, on my own behalf, I would like to impress two issues on the authors of the draft program.

The first is the language of the draft. Unlike the poet, I do not demand perfect language, but the party program should use precise terms that clearly set out various ideas--terms that are taken from another dictionary than that which authors of propaganda brochures and mile-long reports have used for years and year. Today nothing is more in demand than clarity. Obscurity is always a sign of muddled thinking, and jargon is a product of laziness and inertia.

The second issue is that we have all been excessively spellbound by the specters of our crisis. I do not want to induce anyone to forget all about these specters, because we should face reality as it is, but we must use our heads. We say "socialism without distortions," but our people, especially the young, would like to know what is really to become of socialism, which they now evaluate on the strength of what they see and not of what they read. We say "renewal" and "reform," but the people who will want to read the party program will want to find out about the nature of the criteria of justice, the mechanisms of government and of people-to-people relations, the rules of the game in enterprises, the powers of work forces, the powers of self-management bodies, the powers of party committees, the party's safeguards for the rule of law, the party's plans for safeguarding human rights, and the place of individuals vis-a-vis the community and the state. We always continue to renew, rectify, reform, and purge errors and distortions. We have good reasons for that, but it is not enough. New questions and new problems arise, the earth continues to turn, and the 21st century is around the corner, but we keep on drifting toward the past and getting hooked in the treadmill of current domestic affairs. And as for reforms, they should be viewed in the manner in which W. Jaruzelski views them: "Renewal is not only a response to past experiences. It is not activities that are forced on us and that are dictated by seasonal considerations. It is primarily a bridge to the future, to higher levels of socialist transformations. This means decent material conditions, the comprehensive development of man's personality,

the humanism, culture, fullness, and variety of life, dignified people-to-people relations, and conditions under which one can realize one's natural desire to participate in developing social life. Let us cite Marx and Engels: 'If circumstances shape man, then circumstances have to be shaped in a humane way.'"

In 1980 and after, the party went through a great shock. This was because, one, it ignored so drastically the moods and aspirations of people and, two, it proved to be too weak to rectify the situation through political strength. In addition, it disillusioned [rozczałowala] the leaders who continued to lead the country toward disaster and later on failed [zawiedli] in the hour of trial. In the past few years the placement of the party on the ladder of importance has not been typical. Sociological research has placed the armed forces, the government, and the Sejm at the top, but the party has continued to lag and has been hard put to make good the distance. The most recent polls have been better. The recent elections and the subsequent changes at the summit of the state hierarchy have created opportunities for the party. The hoped-for public, candid discussion on the draft party program can create additional opportunities for the party's efforts to win social support and the trust of the workers class, which is the sponsor of the PZPR, and of young people, who will evaluate this program some day in the future as mature men and women.

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POLITICS

POLAND

POLITYKA VIEWS JARUZELSKI, MESSNER GOVERNMENTS

AU161131 Warsaw POLITYKA in Polish 7 Dec 85 p 4

[Marek Henzler article: "Changes in Bodies of Power--Up, Down, and Side-ways"]

[Excerpts] Immediately before the dismissal of W. Jaruzelski's government [in November 85] the Council of Ministers numbered 39 members--the premier, eight deputy premiers and heads of ministries and offices, and three members in the rank of ministers. Three vice premiers, six ministers--of communications, culture, the natural environment, prices, forestry, and health--did not belong to the PZPR. There were 10 professors in the government (W. Baka, B. Faron, E. Grzywa, S. Jarzebski, E. Kowalczyk, Z. Krasinski, A. Lopatka, W. Majewski, Z. Messner, B. Miskiewicz, and K. Tygulski) and five generals (W. Jaruzelski, C. Kiszcza, W. Oliwa, C. Piotrowski, and F. Sivicki). Leaders of the PZPR, the ZSL, the PAX, and of the SD (till last April) were members of the government and five of them were Politburo members or candidate members at the same time. The average age of the previous Council of Ministers was 51.7 years at its dismissal and 52.6 years at its inception.

There were five ministers of domestic trade and services, four heads of the Planning Commission, four ministers of labor and wages, and three ministers each of justice, administration, construction, metallurgy and machine industry, science and higher education, and materials management in General Jaruzelski's government. Apart from W. Jaruzelski, Z. Szalajda, and S. Ciosek, no other minister from previous governments has survived. The following have remained at the same posts from the beginning to the end of General Jaruzelski's term of government: M. Rakowski, R. Malinowski, S. Ciosek (not including his post of minister of labor and wages), W. Kozlowski, T. Szelachowski, and B. Faron. None of these persons has been included in Premier Z. Messner's government.

Of the 69 ministers who were in W. Jaruzelski's government for 4 years and 9 months only 30 stayed to the end. Of the remaining, J. Obodowski, Z. Komen-der, and Z. Szalajda were promoted to vice premiers; J. Czyrek, M. Milewski, and S. Bejger were appointed to higher posts in the PZPR leadership; General T. Hupalowski was appointed chairman of the Supreme Chamber of Control; J. Antosik was appointed deputy chairman of the Supreme Chamber of Control;

R. Karski was appointed chairman of the Polish Chamber of Foreign Trade; M. Krzak was appointed ambassador in Austria; J. Zaleski ambassador in Finland; V.J. Tejchma ambassador in Greece; J. Wojtecki ambassador in the Netherlands; J. Kuberski councillor and minister plenipotentiary in the Vatican; H. Gavronski was appointed trade councillor in Hungary; and K. Kleka trade councillor in Italy. Minister Z. Lakomiec died in a car accident. The average period of time during which a minister stayed at his post in General Jaruzelski's government was 1 year and 10 months.

Zbigniew Messner is the eighth premier in postwar Poland and the first with the title of professor. The new premier, who is 56, has appointed 32 members of the Council of Ministers, which is seven fewer than in the previous government. The Sejm has appointed five vice premiers, (including three new ones) in place of the previous eight. As a result of central reorganization, the powers of the ministries of administration and forestry and of the price office were taken over by other departments. Two ministers, members of the government, had to go and the new post of minister--head of the Office of the Council of Ministers was created. Following changes at the head of eight ministries, 12 new persons--37.5 percent of the total--have joined the Council of Ministers. Almost the entire economic section of the government has remained as it was, but almost all heads of the departments regarded as the so-called superstructure departments and the heads of the departments of domestic and foreign trade have been changed.

Vice Premier Z. Szalajda, who is the senior member of the Council of Ministers, is the only minister with continuous government experience of over 5 years. He was minister of metallurgy in Premier J. Piskowski's government. W. Majewski, minister of communications, has the longest continuous ministerial experience of 4.5 years. C. Kiszcak, C. Piotrowski, and J. Kaminski, who were all appointed in 1981, are just a few weeks behind him.

What about the origins of the present ministers? Fourteen of them hail from the intelligentsia, 10 from workers, even from peasant, and two from other families. Eight of them were born outside of Poland's present borders, four in or near Poznan, and only one in Warsaw. Although one minister is only 31, the average ministerial age amounts to 32.8 years, which is just 1 year more than was the case with the previous government.

In the present government nine ministers have economic education, eight technical, four military, four, legal, two agricultural, and two historical education. One minister is a graduate in the Polish literary studies, one is a sociologist, and one a physician. Most of them studied outside of Warsaw. Five of them graduated from the Main School of Planning and Statistics in Warsaw, four from the General Staff Academy, and three from Poznan University.

Only 13 members of Z. Messner's government worked previously in central administration. Six of them--C. Kiszcak, F. Siwicki, W. Gwiazda, J. Koziol, E. Grzywa, and J. Kaminski--had already been vice ministers.

Ten persons, including first secretary of the PZPR Committee in Katowice; voivodship committee secretary in Gdansk; managers of Katowice Foundry, the Lubin copper combine, the voivodship hospital in Bialystok, the Polish Academy of Science Institute in Zabrze, and the Gdynia harbor; the rector of Poznan University; and the mayor of Lodz, were appointed ministers without having made previous administrative careers in Warsaw. Nine persons of Z. Messner's government had previously worked in the PZPR apparatus. Three of them worked as heads of Central Committee departments and one each as head of ZSL and SD departments. Nine members of Z. Messner's government are professors. Professors W. Baka, E. Kowalczyk, and Z. Krasinski have departed. Z. Gertych and M. Orzechowski are the new professors in the present government. Two members of it have higher doctor's degrees, six ordinary doctor's degrees, and four are generals. Generals W. Jaruzelski and W. Oliwa have departed, but General M. Janiszewski has been appointed to the government, which is now without leaders of the Catholic parties and associations. PZPR members hold 25 ministerial posts, ZSL members hold the post of vice premier and minister of health (the ZSL has lost the post of minister of forestry), SD members hold the old post of minister of communications and the new post of minister of domestic trade, and nonparty people hold the posts of culture and the protection of the natural environment.

All this means that Z. Messner's government is yet another "professional" government, in which economists and graduates in humanities are in preponderance over technologists. In this government there are no people whose only practical experience is previous work in the youth apparatus, followed by work in the PZPR, ZSL, or SD apparatus. Even those government members who are functionaries of these three parties previously worked in bodies other than youth bodies. They were rectors, deputy voivodas, and managers of large plants and institutions.

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POLITICS

POLAND

URBAN ON PRIEST SENTENCING, DEBT REPAYMENTS

AU121111 Warsaw RZECPOSPOLITA in Polish 9 Dec 85 pp 4, 5

[("Transcript" of press conference for foreign journalists given by Government Spokesman Jerzy Urban at the INTERPRESS Center in Warsaw on 3 December]

[Excerpts] Bernard Margueritte, LE FIGARO: Still on the subject of the foundation, in fact, two questions on the subject of church-state relations: In his most recent speech on ideology General Jaruzelski condemned these loudly publicized foundations which are supported by the internal enemy, as he put it. Does the minister think that in talking about foundations in the plural, the general had in mind the agricultural foundation, for example? I presume he was thinking of the "Solidarity" foundation, but there must also have been some other foundation because he did refer to foundations. That is my first question. My second question: An appeals court has upheld the sentence imposed on the priest from Srokow, and part of the sentence states that the priest will not be able to teach the catechism for 4 years. After this verdict and the subsequent appeals court decision, does the government not fear that the episcopate will try to prevent certain party school professors from teaching Marxism-Leninism? It seems to me that the situation would be an analogous one.

Urban: It is clear from the context that General Jaruzelski had in mind those foundations which are used to channel state money from certain Western countries to those engaged in the illegal fight against the constitutional authorities of the People's Republic of Poland. Thus, this has nothing to do with foundations which operate or would operate in Poland on the basis of the statute on foundations passed by the Sejm.

The priest in question displayed flagrant intolerance combined with conduct which was akin to sadism. That part of the sentence which forbids the priest from participating in religious education is based on Polish laws. Without in any way infringing on the autonomy of the church in determining the content of religious education, the state does, of course, exercise a supervisory role with regard to teaching conditions. This encompasses the condition of premises, sanitary conditions, and many others. Put simply, religious instruction, which is paid for by the state, takes place under the auspices of the state, although the education authorities do not prepare the religious instruction curriculum. The analogy you draw, that the church might suspend

the right of party school professors to teach, is a false one because the church does not perform the role of the state authorities and does not oversee teaching in party schools. Church and state are different functions of the two institutions, as France is the fatherland of the separation of church and state. It seems as if you are drawing an analogy between the vocation of the church authorities and the role of the state authorities here. It puzzles me that a Frenchman should reason in this manner because as far as I know, the church in France also has functions and powers which differ from those of the state authorities.

Donald Forbes, REUTER: As the minister obviously did not want to answer my question concerning debt repayments, perhaps I can rephrase it somewhat. Will Poland be in a position to meet this month's repayments to commercial banks?

Urban: First, I spoke on the subject of debt repayment last week. Second, in its debt repayment policy Poland observes the principle that those banks whose credits are not backed by government guarantee and are, therefore, not entangled in the whole political problems surrounding Poland's debts, have priority. I cannot, however, provide an answer to a question as detailed as the one you have put to me. A certain amount of discretion attends operations between banks everywhere in the world. I am not saying this so that you will conclude that something is up; I just do not want to talk about it. Quite simply, as government spokesman I do not have that kind of detailed knowledge.

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POLITICS

POLAND

16TH PARTY PLENUM RESOLUTION RECALLED

LD102229 Warsaw Television Service in Polish 1830 GMT 10 Dec 85

[Interview by Jerzy Romanik, member of the PZPR Central Committee Politburo, with unidentified reporter--date and place not specified; recorded--no video available]

[Text] [Question] The 16th party plenum, which was held in Lodz, was called a workers' plenum. As we remember, it was attended not only by Central Committee members but also by invited workers and representatives of large work enterprises, and not exclusively by party members.

[Answer] And we also remember the course of the plenum, where the discussion was on how to utilize all the possibilities and the economic and human potential which we had then, and of course also for the near future. There were big words on good work, on management, on saving, and in general terms on everything which enriched all of society.

[Question] The 16th plenum ended with the adoption of a resolution which included all proposals, which was then submitted to particular Central Committee departments, to particular ministries, and to the government. What is the assessment of the implementation of the resolution.

[Answer] Not every possibility was used. The degree of implementation of the resolution of the 16th plenum did not satisfy the next Central Committee session, which will make a concrete and competent appraisal of the matter.

We expect--and here I speak also as a representative of the working class--that the working class itself will begin to demand and begin to demonstrate what is a good work and good management, and how a worker should feel as a joint manager in a work enterprise, and in his environment, everywhere he lives and works.

I consider that to be a matter of the utmost importance, because in comparison with other countries as regards productivity and use of raw and other materials, we are well behind and one can say that these are our reserves. This is my reflection on the subject of how every worker in Poland sees his role in this sphere: Good work, use of working time, organization of working time, use of raw materials, everything which brings prosperity to every nation. We need it as well, not only in this difficult situation but also in the future.

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POLITICS

POLAND

JARUZELSKI TO MEET JEWISH LEADER

Leader's Talks With Jaruzelski

AJ111505 Paris AFP in English 1403 GMT 11 Dec 85

[Text] Warsaw, Dec 11 (AF)--Edgar M. Bronfman, president of the World Jewish Congress, arrived today for two days of talks with Polish leader Wojciech Jaruzelski on the situation facing his country's dwindling Jewish community.

Mr. Bronfman, who is heading an eight-member delegation representing various Jewish groups in the West, was met on arrival at Warsaw airport by Religious Affairs Minister Adam Lopatki.

The Canadian Jewish leader said he would meet tomorrow with Mr. Jaruzelski, Poland's president and Communist Party chief. Mr. Bronfman was invited to Poland in September after meeting with General Jaruzelski in New York during the U.N. General Assembly session.

Wieslaw Gornicki, a senior adviser to the Polish leader, said Mr. Bronfman's discussions with officials would focus on protecting the cultural heritage of Polish Jews, including their cemeteries and monuments.

Most of Poland's Jewish community, nearly 3.5-million strong before World War II, died in Nazi extermination camps. Many of the tens of thousands of survivors were either forced to leave or chose to emigrate after 1945, leaving only several thousand Jews in the country.

The delegation, which includes members of the World Federation of Polish Jews and the Jewish Federation of Former Concentration Camp Inmates and World War II veterans is also to meet Polish Jewish organizations and attend a performance marking the 35th anniversary of Warsaw's Jewish Theatre.

Mr. Bronfman dismissed suggestions his meeting was aimed at negotiating a deal with General Jaruzelski to enable thousands of Jews to leave the Soviet Union for Israel.

"I have come to Warsaw solely to settle problems concerning Jews in Poland," he said.

Reports in Western capitals suggested that the United States, France, Israel and the Soviet Union were engaged in secret negotiations aimed at securing permission for 15,000 Soviet Jews to leave for Israel.

The reports said a deal, discussed last week in Paris by General Jaruzelski and French President Francois Mitterrand, would provide for Jewish emigres to fly first to Warsaw. They would then fly directly to Israel, satisfying Soviet demands that Jews not opt for emigration to the United States.

World Jewish Congress Delegation

LD121832 Warsaw Domestic Service in Polish 1800 GMT 12 Dec 85

[Text] Wojciech Jaruzelski, chairman of the State Council, received Edgar Bronfman, chairman of the World Jewish Congress, and members of the delegation who are staying in Poland at the invitation of the Social and Cultural Association of Polish Jews to mark the 35th anniversary of the State Jewish Theater in Warsaw.

The delegation expressed appreciation for the care given by the Polish authorities and social institutions for Jewish cultural relics in Poland, the sites of the joint struggle of Poles and Jews against Hitlerite genocide, and the many places of martyrdom of the World War II period. During the meeting, the two sides discussed the plans of the Social and Cultural Association of Jews in Poland in this respect.

Delegation at Warsaw Ghetto Monument

LD111612 Warsaw Domestic Service in Polish 1500 GMT 11 Dec 85

[Text] A delegation representing the World Jewish Congress, the World Federation of Jews from Poland, and the Federation of Jewish Concentration Camp Prisoners and Ex-Servicemen of WWII, arrived in Poland today, with the chairman of the World Jewish Congress, Edgar Bronfman. The guests laid wreaths at the monument to the heroes of the Warsaw ghetto in the capital and met representatives of Jewish organizations active in Poland: The Jewish Sociocultural Society (TSKZ) and the Religious Association of the Mosaic Sect.

Rumor Denied on Soviet Jews Exit

LD111528 Hamburg DPA in German 1502 GMT 11 Dec 85

["Warsaw Denies Rumors Concerning Exit of Soviet Jews"--DPA headline]

[Text] Warsaw 11 Dec (DPA)--Polish Government circles in Warsaw have today "resolutely" denied rumors about secret talks concerning the exit of 15,000 Jews via Poland to Israel. The adviser to Wojciech Jaruzelski, head of state and party general, Major Wieslaw Gornicki, who accompanied the general

to Paris, said in an interview with DPA that there was "not a shadow of truth" in the rumors. Such a matter had not been spoken about during Jaruzelski's meeting with State President Francois Mitterrand.

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POLITICS

POLAND

OFFICIAL VIEWS ROLE OF PUBLIC POLLS

AU171125 Warsaw TRYBUNA LUDU in Polish 11 Dec 85 p 2

[Interview given by Colonel Stanislaw Kwiatkowski, head of the Central Public Opinion Poll Center, to PAP Correspondent Tomasz Arleth: "Listening to What People Have To Say"--date and place not given]

[Text] [Arleth] What is the use of public opinion polls?

[Kwiatkowski] Public opinion polls or listening to what people have to say can be used to meet various needs and to benefit holders of important state posts and all the people on the condition that these polls are honest and their results are taken into consideration. The government has many sources of information about our society. Our citizens' demands and views continue to reach the government via many democratic representative bodies. Various councils and commissions set up by the authorities at all levels act as advisers.

The public polls carried out by specialized bodies such as our center are another form of democratized government.

The results of these polls are often identified with the practice of collective decision-making that is proper to direct democracy by referendum. People ask whether the government takes public polls into consideration and whether concrete decisions are made on the strength of polls. Well, government decisions do not take into consideration every element of social moods and evaluations. The government has to know these elements, but it is unable to satisfy everyone with its decisions.

People participating in public polls are cross-section representatives of individual communities of our society or of all mathematical methods. They volunteer answers to questions put to them by pollsters. The results of such polls are representative for individual communities or for all people and make it possible to control the effects of political and economic measures. It is in this way that decisions can be adjusted. Our center is able to provide important hints about change in public opinion.

[Arleth] That you provide services for politicians poses the question whether you are a scientific center or a state office.

[Kwiatkowski] Formally, our center is a unit of the Office of the Council of Ministers, but we do scientific work. Without scientific honesty our unit would be of no use for the government and people. We are a service institution vis-a-vis the government and the political leadership. Our service is not easy.

[Arleth] What happens to the materials you produce?

[Kwiatkowski] Our materials are read and used by the bodies concerned. This is proved by the fact that on many occasions politicians refer to our reports and communiqus. Scientists utilize our materials and journalists propagate them among people.

Our center's duty is to provide the maximum of information about people's moods and views. Our methods to gather information vary. Distilling public opinion is a painstaking job. You have to put various elements together to create a clear picture. It is a jigsaw puzzle, the elements of which we collect in most varied ways.

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POLITICS

POLAND

KISZCZAK ON ANTI-CRIME MEASURES

AU171122 Warsaw TRYBINA LUDU in Polish 12 Dec 85 pp 3, 4

[Interview given by General of Arms Czeslaw Kiszcak, PZPR Politburo candidate member and chairman of the Council of Ministers Committee for Observing Law, Public Order, and Social Discipline, to Jerzy A. Salecki: "We Hope That People Will Continue To Support Our Measures"--date and place not given]

[Excerpts] [Salecki] On 2 December 1983 the Council of Ministers Set up the Committee for Observing Law, Public Order, and Social Discipline. It is worth recalling why this committee was set up.

[Kiszcak] Yes, it is. State leaders were concerned at that time about the scale of crimes and about the poor effectiveness of countermeasures. On Comrade Jaruzelski's initiative several steps were taken to change that situation, and the committee was charged with coordinating these steps.

[Salecki] The committee's activities are comprehensive. How would you describe them briefly. What is the share in them of representatives of state and social bodies?

[Kiszcak] Controlling and disciplining operations initiated immediately after the committee was set up are an important factor in eliminating violations of law.

So far 662,758 militiamen, soldiers from the Ministry of Internal Affairs and the Armed Forces, and functionaries from the Railroad Guard have participated in these operations, which started on the Polish railroads in December 1983. Control checks were carried out on 379,050 trains and revealed 557,682 violations of the law. Thousands of hooligans were removed from depots and trains and 2,004 railroad employees were found drunk on duty. The necessary legal steps were taken against the culprits.

Several disciplinary operations such as "Aglomeracja" and "Posesja-85" have been carried out to increase public order and safety in public places and housing settlements. These two operations were carried out on several

occasions by 537,000 militiamen and representatives of administration and social activists and uncovered 41,416 crimes and 279,083 misdemeanors.

[Salecki] The committee also deals with violations of law in the national economy....

[Kiszczak] We have devoted much attention to irregularities in this important sector and have analyzed the reasons for such harmful features such as waste-fulness and bad quality production. Speaking of irregularities in the na-tional economy, we must not see only production enterprises as culprits. Sci-entific research units and various institutions are just as instrumental in determining the state of our economy and its modernity and effectiveness and in reducing the import of certain raw materials. Many developed countries of the world would not be ashamed of the potential of these units and institutions, but we all know the poor results of the performance of some of them.

Control activities vis-a-vis the private economy require a separate treat-ment. There are some prerequisites that justify the continuation of these activities. You see, some people in this sector want to get rich quick and to make big fortunes by dishonest means. As a rule, they do this by breaking the law and the principles of social justice. It is regrettable that the work of the relevant self-management bodies in this sector is not effective enough to eliminate the individuals in question from economic activi-ties. This harms the good name of Polish handicrafts and other sectors of the private economy, which, if it is healthy, the state and the people need. We are not interested in "strangling" this economy, but we have to call to order the people who want to get rich through swindles and not through honest work.

The operations in the private economy began in April 1984 and 247,470 control checks were carried out up to November 1985. Some 52,800 cases of law violations were ascertained and 54,900 people were charged. Property valued at about 23.95 billion was attached to meet the eventual claims of the state and court verdicts. Revenue bodies meted out fines totaling 22.1 billion for taxation swindles and proposed that 2,608 persons should not be allowed to continue their business.

Because law violations still continue in this sector on a rather major scale, our operations will continue, but we expect that the self-management bodies in the private economy will be more militant in eliminating from this econ-omy the people who harm the national economy and the good name of Polish artisans.

[Salecki] The activities you have discussed have helped to improve the state of public security and order....

[Kiszczak] I am pleased to state that, beginning with the second half of this year, the overall scale of crimes has continued to be reduced slowly, but consistently. As for common crimes, they continue to go down with in-creasing frequency in the basic groups and kinds of crimes to which the

provisions of the law passed on 10 May 1985 apply. The incidence of uncovering the economic crimes that are most dangerous to society is high. The butt of our activities is primarily directed against major economic crimes, appropriations of large public assets, and criminal economic management.

[Salecki] You committee deals with social delinquency and analyzes its causes and effects. How far does your committee cooperate with other official bodies interested in combating alcoholism, drug addiction, and demoralization of young people?

[Kiszczak] Our committee has separate problem teams to counter social delinquency and to foster citizens' legal awareness. These teams are staffed by prominent specialists and people who are professionally and socially active in this sector. This makes it possible to obtain information about the danger of social delinquency and to coordinate major countermeasures.

The draft government program for the struggle against and prevention of social delinquency and other law violations assumes that we must do more than just issue regulations and instructions and order state bodies to take the necessary action. The determining factors of the development of delinquency are rooted in society and social education, which means that we must set up an extensive system of measures to counter delinquency. This system must include law enforcement bodies, educational and cultural bodies, and, above all, organized social forces. It is necessary to assign the proper roles to each participant in this system and to ensure that planned measures are coordinated.

Today many social and youth organizations continue to wage the struggle against delinquency and to score some successes, but this is not enough. We have to incorporate these activities within a single program, especially in view of the fact that the social determining factors of many kinds of delinquency, including demoralization, alcoholism, and drug addition, are almost identical.

[Salecki] The work of your committee is of great interest to the party and state leaderships and to the public. No doubt your committee, which has begun the third year of its existence, has plans for activities in 1986 and other years.

[Kiszczak] Yes, it has. The committee and its presidium and teams work in line with definite semi-annual and quarterly plans, the commitments of which are results of the appraisals and analyses made by the competent bodies of the committee and, primarily, of the resolutions and decisions made by the proper political and state agencies. The resolutions of the 16th Central Committee plenum have made a crucial impact on the lines of our committee's work.

We hope that our activities will continue to be approved and supported by our society. The many proofs of its approval and support make us increasingly more convinced that the work plans of our committee are correct.

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POLITICS

POLAND

COUNCIL OF STATE MEETING

AU170909 Warsaw TRYBUNA LUDU in Polish 13 Dec 85 pp 1, 2

[Excerpts] PAP--The State Council met in the Belvedere Palace on 12 December.

It heard a report on the official visits by State Council chairman Wojciech Jaruzelski to the Socialist People's Libyan Arab Jamahiriya, Democratic and Popular Republic of Algeria, and Republic of Tunisia.

The visits expressed the friendly relations joining Poland and these Arab countries, and confirmed the importance of our country attaches to the developing and nonaligned countries.

During the talks held by the State Council chairman with the leaders of these countries, interest was shown in expanding comprehensive relations and raising mutually advantageous cooperation to an increasingly higher level.

The State Council underlined the political and economic significance of the decisions made during the visits to Libya, Algeria, and Tunisia, as well as the need to make efforts to further animate Poland's relations with these countries.

The State Council also heard a report about Wojciech Jaruzelski's meeting with French President Francois Mitterrand in Paris. This visit was recognized as an important step along the road to strengthening Poland's position in the international arena.

Next on the agenda was a report on complaints submitted to the Supreme Court, Supreme Administrative Court, Prosecutor's Office, Ministry of Justice, and general courts in the first half of 1985.

In order to gain the fullest possible picture of society's opinions on the judicature and law enforcement, the State Council also acquainted itself with reports on complaints that had reached the Sejm, PZPR Central Committee, Council of Ministers, and PRON National Council.

A thorough analysis of the reasons behind the repeated accusations involved in the complaints, as well as the number of the complaints themselves, made it possible to reveal the chief defects in the work of the judicature and law enforcement bodies.

These defects include recurring cases of protracted court proceedings, mainly in civil cases and in the enforcement of sentences, as well as a hasty settling of affairs in attorneys' offices.

On the recommendation of the chairman of the Supreme Chamber of Control, the State Council recalled Aleksander Schmidt from the post of deputy chairman of the Chamber in connection with his retirement and appointed in his place Tadeusz Materka.

Under the terms of the law governing the State Labor Inspectorate, the State Council appointed a board for the Labor Protection Council, this being a body designed to plan and control the work of the State Labor Inspectorate. Leszek Brojanowski, deputy chairman of the All-Polish Trade Union Accord, was appointed chairman of the Council.

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POLITICS

POLAND

TRYBUNA LUDU ON MARTIAL LAW ANNIVERSARY

AU170910 Warsaw TRYBUNA LUDU in Polish 13 Dec 85 p 1

[Piotr Rzadca article: "An Opening to the Future"]

[Text] Time flies so fast that it erases quite recent memories. How far away from us December 1981 already is! A dramatic decision preceded by equally dramatic events. Anarchy and growing danger, later surprise and shock. And finally, a political declaration about the necessity for extraordinary measures in order to restore normality to life.

The intentions of politicians and the truth of their declarations are tested by real facts. From the distance of 4 years one can check their correctness properly and without any omissions. It has been a time of normalization. It was opened by martial law and closed by the Sejm elections. It was a period in which normality was restored to life, but at the same time life was made subject to new principles. It was a time of socialist renewal started by the party's Ninth Extraordinary Congress.

The past 4 years have been packed with events of unusual social importance, for instance the economic reform, initiated despite the difficult situation and perhaps because of this situation in order to heal our economy more quickly; dozens of new Sejm decisions; new and greater powers for the people's councils; the development of broadly-conceived local, workers, and cooperative self-government; the rebirth of class trade unions; an openness of public life; the widespread practice of social consultations and advice-giving to bodies of authority; the creation of the worker-peasant inspectorate and an intensification of the struggle against social pathology; the emergence of PRON as a forum of dialogue and accord; and the energy of citizens during the people's council elections and their support for the policy of changes during the Sejm election.

It does not sound paradoxical to say so today, but it is martial law which permitted all these positive processes. It was not a return to the discredited practices of ruling the state. It was the beginning of normalization and the beginning of renewal. How do we comprehend these concepts today? Wojciech Jaruzelski spoke about this during the Second Party Ideological and Theoretical Conference: "There is still no shortage of hesitation and lack of faith in the future. It is all the more important, therefore, to

have an answer to the following question: How should we construe socialist renewal? It possesses two basic meanings. First, it comprises conclusions from painful experience, everything that we have been changing putting in order, and purifying for several years in order to root out the distortions and weaknesses and conquer their effects.

But in the second, long-term meaning, renewal is not only a reaction aimed at the future and not any enforced or conjunctual activity, but a bridgehead to the future and to higher stages of socialist changes.

After all, one cannot live with a "crisis conscienteness" all the time, not wait until the complicated times are past. Neither can one take life as it comes, without any clear view of tomorrow. The period of restoring normality was an essential starting point, but today a period of development is also essential and expected. Yesterday the most important social value for us was social calm, whereas today we want this to be accompanied by social progress, a progress mapped out for the future and based on an awareness of the permanence of the new policy of the party and state authorities and on the correct development principles of socialist construction.

That is why we are thinking and talking about the future and concentrating on it more and more frequently. This we are doing with the conviction, already present in many social circles, that we can extricate ourselves from our present difficulties and that we can work out the most effective ways of developing the country comprehensively, harmoniously, and safely, in such a way that thanks to increased energy by the working people and by using the scientific-technical revolution, we may boost the production of commodities and manage the country more effectively, which will permit us to satisfy our needs and the nation's aspirations to a higher degree than at present.

We are encountering fear and doubts whether we can perform all this. However, fear solves nothing and in no way makes us move forward. What we do need is a realism of expectation and a boldness in improving our lives. We need to rally around those people who display this realism and boldness and use at the same time all the new democratic mechanisms necessary to bring about these changes.

We are also encountering examples of passiveness and the seeking of alibis in order to avoid increased effort and personal responsibility for what belongs to all of us. This of course means that some people are burdened with work beyond their share and others take illegal advantage of their work. One cannot come to terms with this.

Finally, we are encountering various obstacles to progress which always accompany periods of change and which we must remove after discovering in which social groups or inside which mechanisms they occur. But we also have an increasingly better knowledge of what people and what groups are and can be factors in the acceleration of change of general prosperity. Every work place and social circle knows.

A concentrated collective will is necessary in order to achieve tangible and real progress. As a party, we started this progress with our daily political work and daily activity by all components of state and social life.

One may express the profound conviction that the discussion on the draft party program will permit this will and these social aspirations to be included among the tasks for the nearest future and incorporated in the future of individuals and our entire nation.

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POLITICS

POLAND

URBAN, GORNICKI AT 10 DEC 85 PRESS CONFERENCE

AU181454 Warsaw RZECZPOSPOLITA in Polish 16 Dec 85 pp 4, 5

[*"Transcript" of press conference given to foreign and Polish journalists by Government Spokesman Jerzy Uroń and Major Wiesław Gornicki, adviser to the State Council chairman, in Warsaw on 10 December*]

[Excerpts] Surender Kumar Bhutani, UNITED NEWS OF INDIA: During his visit to Libya, General Jaruzelski met with Syrian Deputy Premier Khaddam. Any details about this meeting?

Gornicki: The meeting took place at the request of the Syrian vice president because on the very day on which General Jaruzelski was leaving Tripoli, Vice President Khaddam arrived in Libya. The meeting lasted 25 minutes and, if I may say so, concerned the current international situation and the problems of the Arab world. I do not think I have anything more to say on this subject.

Michael Kaufman, THE NEW YORK TIMES: Major, General Jaruzelski's lightning visit to Paris took place a few weeks after M. Gorbachev's visit. Could it be that precisely the Gorbachev visit set in motion the process that culminated with the Polish leader's visit?

Gornicki: Poland is a sovereign country and follows its own foreign policy in keeping with its own interests. Certainly, there is an indirect connection between M. Gorbachev's Paris visit and W. Jaruzelski's visit, at least insofar as we see French policy. It seems that the so-called new cold war is coming to an end in various areas, though not in all areas, and that is why it is natural that the more far-sighted politicians are concerned rather with the future than with the past. There was no direct connection between the two visits.

Christopher Bobinski, FINANCIAL TIMES: How did North Africa receive the announcement that visa relations had been established between Israel and Poland?

Gornicki: It is good that you use the term "visa relations," because various press media, including those in the Middle East, have erroneously assumed that Poland intends to establish diplomatic relations with Israel. I

declare that such an intention does not exist. The issue of visa relations you have brought up is of a purely humanitarian and nonpolitical nature. It was explained succinctly and clearly to all our Arab interlocutors.

Bobinski: Thank you. But how did they receive it?

Gornicki: With understanding. After all, humanitarian considerations do exist aside from politics. All the countries we visited shared these considerations with us.

Guenter Schubert, ZDF, West Germany: What significance does the Polish Government attach to Erich Honecker's coming visit to Warsaw? What is the Polish Government's position in connection with a possible visit by Erich Honecker to the FRG?

Urban: Mutual visits by socialist leaders are a form of normal cooperation among the socialist countries. We have very close relations with the GDR, and Erich Honecker's visit is one of the ways in which we cultivate these relations at all levels, including the summit level. As for E. Honecker's possible FRG visit, about which the Western press continues to speculate, it is a matter for the GDR and the FRG. We have always been in favor of the East-West contacts that promote international detente, peace, and other good aims, which are also the aims of Polish foreign policy. However, what we wish for is that the West German intentions vis-a-vis such contacts are as good and noble as those of our friends in the GDR. Naturally, this remark concerns some West German commentaries on relations with the GDR, commentaries that cause us anxiety at times.

M. Kaufman: Minister, could you tell us what the Polish Government expects in connection with the Polish visit by Edgar Bronfman, chairman of the World Jewish Congress? E. Bronfman is supposed to begin his visit today and to see General Jaruzelski.

Urban: It is true that Mr Bronfman will visit Poland and will be received by General Jaruzelski. Mr Bronfman is at the head of a delegation that includes representatives of the World Jewish congress, the Federation of Jews from Poland, and the Federation of Jewish Fighters in the Resistance Movement. The delegation was invited by General Jaruzelski last September when he had a talk with Mr Bronfman in New York. The purpose of the visit and planned talks are issues connected with the past and present life of the Jewish minority in Poland. Talks will be held about the maintenance of various objects of the Judaic faith, sacred objects, cemeteries, and monuments as well as about cooperation on access to archives, about displays of mementoes, and about similar issues connected with the fact that for many centuries Poland was home to some 3.5 million Jews.

Bernard Margueritte, LE FIGARO: We know that the Polish side has been against the meetings between the visiting Western statesmen and leaders and advisers of former Solidarity. Willy Brandt found an original way out and met with a delegation of the legally operating Club of Catholic Intellectuals. As

it turned out, this delegation included former advisers of Solidarity. Could this be taken as a precedent? Will this formula be accepted during the future visits by Western statesmen?

Urban: I have no comments to make on the private aspects of Mr Brandt's visit. This is one part of my answer. The second part is that our position on the so-called scenario of Polish visits arranged by the NATO countries has not changed in any way. The third part of my answer is to recall General Jaruzelski's words that what is important to us is the present attitude of our visitors and not which country they come from. I do not wish to apply these remarks personally to any one. All I want to say is that our stand on programs of Polish visits applies to contacts with the persons who are at present interested in the struggle against the political and constitutional system now existing in Poland. This stand does not apply to old attitudes if they have now lost their validity. I repeat that what I am saying is not a comment on any person at all. It is a comment on your general statement about Solidarity advisers.

Kevin Ruane, BBC: Minister, you promised us long ago that you would supply us with prompt information and a statement about the investigations into Marcin Antonowicz's death. Why is it that this statement has still not been published?

Urban: This is because investigations are still in progress, but they will soon be completed. The present situation is that Gdansk and Lublin physicians have pledged to submit by 11 December their final opinion about Antonowicz's death. An experiment carried out by the Forensic Institute has confirmed what investigations have established, namely, that Marcin Antonowicz jumped from a moving automobile. On 5 December the prosecutor in charge interviewed Professor Karol Taylor, former rector of Gdansk University, who in his speech at Antonowicz's funeral suggested that there was an analogy between his death and that of Father Popieluszko and that militiamen could be responsible for the former's death. Professor Taylor, who was interviewed as a witness, was unable to identify the facts that could warrant his suggestions and said that he did not know of any facts that might indicate that militiamen had caused Antonowicz's death.

Posadzki, Gdansk University student, did not appear for an interview with the prosecutors and did not supply any excuses for his nonappearance. He was fined for this and asked to report for an interview on 12 December. At Antonowicz's funeral Posadzki read a letter from Lech Walesa suggesting that Antonowicz's death had been caused by militiamen. Posadzki and Walesa will be interviewed to find out what they know about Antonowicz's death and why they publicly spread such suggestions.

Renata Marsch, DPA: Do you know anything about the beating up of Father Zalewski in Krakow?

Urban: Investigations into this case are continuing with great effort and Lawyer Rozmarynowicz, who represents Father Zalewski, is participating.

However, since this battery occurred on 4 December, the investigations have not fully developed. This battery is a strange and puzzling case. I have nothing to tell you about the results of investigations at this point.

Jerzy Gonczarski, EXPRESS WIECZORNY: Minister, do you know whether the prosecutor's office intends to take any legal proceedings against Professor Taylor, following his depositions?

Urban: I have no information to this effect. During the investigations into M. Antonowicz's death everyone is invited to an interview who has asserted publicly or otherwise that he knows something about this death, and the militia knows that such assertions have been made.

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POLITICS

POLAND

GOVERNMENT COMMITTEE DISCUSSES CRIMINALITY

LD232142 Warsaw Television Service in Polish 1830 GMT 23 Dec 85

[Text] The Presidium of the Council of Minister's Committee for the Observance of Law, Public Order, and Social Discipline has met. A report on the state of criminality in Poland and crime-inducing social phenomena was discussed, as also a plan of government actions to limit criminality. It was stated that justified social opinions and demands should be treated with greater attention. Life at the cost of society and contrary to its interests must no longer be tolerated. The elimination of these phenomena, it was stressed, is, however, a task not only for the state authorities, but for the whole of society.

Attention is drawn within the program to the need to enforce observance of the law in the national economy. The state and all citizens pay a bit too much for bad work discipline, for the poor quality of production, for the waste of food and energy. The pretence of work in some institutes and study and development centers, whose work too often does not correspond to the needs of the state economy, cannot be tolerated. These problems were included in the program of the committee's activity.

An important role in the national economy and in meeting society's needs falls to the private sector. Too often, however, cases of criminality and violation of the principles of social justice by some representatives of this sector justify the continuation of the controls up to now.

The meeting was chaired by General Czeslaw Kiszcak, chairman of the commission.

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POLITICS

POLAND

URBAN ON WALESA, UNIVERSITY 'PURGES,' LABOR ISSUES

AU271819 Warsaw RZECZPOSPOLITA in Polish 23 Dec 85 pp 7, 8

[Transcript" of press conference given to foreign and Polish journalists by Government Spokesman Jerzy Urban in Warsaw on 17 December]

[Excerpts] Ian Glover-James, ITN: Could you comment on the reports in LE MONDE and other papers that during his talks with President Mitterrand, General Jaruzelski discussed the possibility of the emigration of Soviet Jews from the USSR to Israel via Poland or with Poland's help? Could you say that Edgar Bronfman's recent visit to Poland was in any way connected with that emigration?

Urban: I can clearly state that all such reports are untrue. General Jaruzelski did not discuss the issue in question with President Mitterrand. Nor did anyone discuss it with Mr Bronfman in Warsaw. This was confirmed by the French spokesman and by Mr Bronfman. I cannot see why you have asked this question.

Matthew Vita, AP: In the past few weeks and months the name of Mr Walesa has been appearing with increasing frequency in the press and the media, especially in the context of articles and critical reports on his statements and speeches. Could this denote the government's new strategy aimed at tiring him or at enmeshing him in various specific activities? Could this be connected with the fact that investigations against him are in progress in Gdansk and Olsztyn? Could this mean involving him in such things so that he would have less time for public relations?

Urban: The Polish Government is able to afford only a rather simpleminded spokesman, and so I would like to receive simple questions. Your question is terribly complicated, but I will try to divide it into some component parts and answer it.

I understand that you have noticed that the Polish press has recently given increased critical attention to Walesa and that you want to know whether this is meant to tire him. I have not noticed that the name of Walesa has been recently appearing in the media with increasing frequency. Its appearance in the press is very rare and when it does, then it is in the context of history, to which it belongs. I do not think that the appearance of his

name in the press tires Mr Walesa. On the contrary, it is his dear wish to see his name in the press as often as possible.

You have suggested that investigations against Walesa continue to prevent his contacts with the public. This is a strange view. Mr Walesa cultivates his public relations in that he receives Western journalists. I do not think that investigations in question make this difficult nor him. At the moment investigations are in progress into the defamation committed by Mr Walesa. If one says something, one must have time and patience to take responsibility for his words.

Kevin Ruane, BBC: Could you confirm that a Polish parliamentary delegation has been invited to visit Great Britain? Could you comment on Polish-British relations in this connection?

Urban: I have no information on this subject, but I will make inquiries. I am not a Sejm spokesman and know nothing about the Sejm's present plans in this regard. As for Polish-British relations, there have been no recent events to merit my comment, except that the BBC screened a film about Poland which we evaluated as exceptionally one-sided and untrue. But everyone knows that the British Government does not claim any influence over the BBC, although the facts tell a different story.

However, if we ignore that undoubtedly jarring incident in our relations, then we can say that, following visits to Warsaw, especially the visit by the foreign secretary of Great Britain, these relations develop very slowly but in the right direction. We wish they could develop faster.

Robert Strhbel, the POLONIAN PRESS: Invoking the constitutional provision about the party's leading role, last week you said that certain people were removed from Wroclaw University because party recommendations were withdrawn from them. What university posts require such recommendations? How do you evaluate the general climate at universities, following the recent "purge" of personnel?

Urban: Party recommendation is required in the case of leading posts. A different opinion is needed for promotion in the hierarchy of the posts of independent scientific workers. Such an opinion can be given by the party or by some other organization such as, for example, the Polish Teachers' Union or some other organization to which the candidate for a higher post belongs and which knows him best. As for leading posts, the recommendation in question should state whether the candidate enjoys trust and is fit for the post. This recommendation refers mainly to one's social militancy, which is one of the elements taken into consideration when one's promotion is debated.

As for the climate in our universities, the people in them continue to fulfill their tasks. The climate of work is the prevailing climate. Certainly, personnel decisions are the subject of great interest and continue to be commended on, especially in the universities to which they apply. People differ as to the recent personnel decisions and as to such decisions in general. Some consider them correct, some incorrect for various reasons.

Christopher Bobinski, THE FINANCIAL TIMES: Could you tell us about consultations with the new trade unions about working time next year? I would like to know about workfree Sundays next year.

Urban: The consultations you mention are about the rider to the law of 31 July 1985 on modifying some legal regulations that govern the functioning of the economy to meet the needs of the country's socioeconomic development. Article 4 of this law states that in order to fulfill the most important tasks relating to living standards, defense and economic development, in the period 1986-90 the government is entitled--after consultations with the National Trade Union Council--to list the [word indistinct] of fundamental importance for the economy in which working time amounts up to 8 hours a day and 46 hours a week.

The issue at the moment is to draw up a list of the plants in which working times can be raised to 46 hours a week.

Trade unions active in the given sectors of industry and in given enterprises have studied the proposal as to which enterprises should be so listed and have generally refused to have working time raised in the enterprises in which they are active.

That is why it is still impossible to settle the list of enterprises in question, and negotiations with trade unions are necessary. The government Presidium will soon deal with this problem. For the time being, the minister of labor is busy talking with the trade unions in order to reach some accord with them. Let me explain that the enterprises under consideration are those that are economically fit to work longer hours and which have the necessary supplies of raw materials. The principle of a 42-hour week is still in force, and any work in excess of this limit is paid for as overtime.

Bobinski: Will the Saturday work in the enterprises placed on the list be paid at a double rate or is this merely a prolongation of working time?

Urban: My statement "as overtime" also applies to work on Saturdays. There are various rules governing this issue.

Let me also explain that as a result of temporary legal regulations the institution of prolonged working time still exists and that abandoning it would mean another reduction in real working time in our country and another reduction in production.

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CSO: 2600/180

POLITICS

POLAND

GRZYB ADDRESSES CENTRAL COMMITTEE

LD210554 Warsaw Domestic Service in Polish 1310 GMT 20 Dec 85

[Speech by Zofia Grzyb, PZPR Central Committee Politburo member, at 20 December session of the 23d plenum of the PZPR Central Committee--recorded]

[Text] Esteemed Comrades, the basic principle of our activity is the consistent and systematic accounting of accepted resolutions. In this year, the Central Committee has already, for the second time, been informed of the progress of the realization of the 16th Central Committee Plenum's resolution; in the same period, the Central Committee Politburo examined this subject four times. As the comrades remember, directly after the 16th Central Committee Plenum, we conducted consultations on programs and matters which were taken up at this meeting of the Central Committee, at nearly 6,000 open party meetings. The accepted resolution, and the resolutions of participants concerning the strengthening of the leading role of the working class in building socialism in Poland, and the results of consultations, constituted the basis for the promulgation of timetables in which the tasks for departments of the Central Committee, voivodship committees and ministries were defined. Making recommendations for a wide-ranging study, it stopped short of certain problems, which we acknowledge as demanding clear-sighted consideration and particular emphasis.

An so, in the chapter devoted to discussing the tasks concerning the strengthening of the worker character of the PZPR, it is stated that we achieved progress in shaping the numerical state and the class composition of our party. It must, however, be clearly stated that not everyone worked to an equal degree for this effect. We pose ourselves the question--Why do 31 voivodships have visible results in this sphere, yet 18 do not? No analysis of the so-called specifics of the voivodships gives us anything. This is because the cause does not lie in this. Comrades from Szczecin, finding themselves in this group of 31 voivodships, clearly state that only 50 percent of the basic party organizations worked for these positive effects. I stress only 50 percent of basic organizations. The reasons for the party's relatively slow rebuilding of itself among the working class include, among other things: the not always visible role and authority of the party organizations in work places; in the milieu; not coming out aggressively enough with the program beyond one's own structures; not treating the development of party

ranks as one of the fundamental directions of our activity. One of the tasks approved at the 16th Central Committee Plenum was the continuation of the enrichment of contacts between party and state authorities with the work-forces of work enterprises. We are implementing this task. Thanks to these direct contacts, we are enriching our knowledge of human problems, about complaints, attitudes, about the reality which is often (?pitiless), often harsh, and, as it sometimes happens, also sad.

From these meetings, we also come away with the knowledge of what deters, what is disturbing, about incompetent, indifferent, and sometimes, unfortunately, also dishonest people. We use this knowledge in our party activity. But despite the fact that undoubtedly, the number of contacts, and of meetings between the party and state echelons and authorities with workforces from places of work has increased, the statement of the Central Auditing Commission, which studied the realization of the decisions of the 16th Central Committee Plenum in large enterprises, that the workers are not always satisfied with such meetings, is not devoid of validity. For example, it transpires from the opinions of the workers of the Rudna mining establishment, that they are awaiting more direct contacts at their workbenches. This should be an obligatory warning signal to us all.

We write in the material presented about the increase in the political activity of workers, and we have many examples of this. They are active in the People's Councils, in trade unions, in worker's self-management; they are speaking out more often, and are critical. But now, the next question must be posed in this way. How can their effectiveness, their political activity, in the functioning of committees of party organization, in the exploitation of their assessments and conclusions in sociopolitical life be increased? How to direct this worker criticism at the elimination of negative phenomena; in this also, and maybe above all, in their own environment? One of the undoubtedly, one could say, systemic achievements of the 16th Plenum is the creation and activity of the Worker-Peasant Inspectorates. In the space of 10 months of this year, an army of over 20,000 social inspectors has been raised. The class significance of the inspectorate is testified by the fact that we have 75 percent of workers and peasants in its composition. In October of the current year, we in the Politburo of the Central Committee evaluated the state of organization and the results of checks on the justification of the allocation of apartments, conducted by the Worker-Peasant Inspectorates. It transpires from this evaluation that in this brief period of activity, the social inspectors of the inspectorate did a lot. We are counting on their doing even more. However, with this sort of irregularity, in the battle with the pathologies of theft, abuse of authority, elitism, we must all take part.

Unfortunately, it is not yet so, despite the fact that we have such a party and civic responsibility. It is easier for us to point out what is bad, to demand, to have expectations; it is more difficult for us actively to involve ourselves in its elimination. Here, the inspectorate on its own will not do much, and this is a task for all honest people. The things I said are connected to the problem of shaping the class consciousness of the workers. We accepted such a task at the 16th Central Committee Plenum. As

a result of their realization, programs of economic, historic and legal and state education are being introduced. From the material presented, the comrades will see how much we have done, and how much there is still to be done.

In creating a series of new forms of political education, we have the right to expect a gradual improvement and the better preparation of the aktiv and members of the party, and the fuller knowledge of the socioeconomic, historical, legal and state professes. A great deal of this sphere depends upon us, upon the committees, upon party organizations, which should make all possible efforts to ensure that the approved programs were realized to their fullest extent. Workplace centers for education and information have particular responsibilities in this sphere.

In this same superstructure are activities concerned with the strengthening of the class character of the state's political culture. Much is being done in this sphere. One can mention here the dynamic development of workplace circles of the Worker's Association of the Creators of Culture, the socially significant functions of the weekly TWORCZOSC ROBOTNIKOW, the report on the state of worker's culture prepared by the Council of Culture and Art of the National Trade Union Accord, the cultural activity in workplaces, housing developments and cities.

Nevertheless, in parallel with the undisputed achievements, problems are also evident, which must be disturbing. Not everywhere is this sphere of activity fully appreciated. Party, trade union and youth organizations must exact from the heads of work places the fulfillment of responsibilities that are placed on them by the law on the popularization of culture. They should also, at the same time, take up inspirational activities and should actively involve themselves in the realization of the program of cultural activity.

Here are more problems in this sphere. In accordance with the decisions of the 16th Central Committee Plenum, a program for the raising of the level of training in education and vocational training was worked out. At present, materials have been prepared for the 24th Central Committee Plenum, which will take up comprehensively the problems of the improvement and development of education. We know that a series of initiatives is being developed; the national action to aid schools; the sponsorship of workplaces; the transfer of financial resources and teaching assistance in some schools. There is visible progress here.

The level of teaching and educational work in vocational schools is improving. The network of the structure of education and the teaching content is being modernized. The base is being developed, and especially, the modernization of school workshops. Within this continuation of activities there are, however, problems which we cannot be allowed to forget.

I shall mention here the monotonous difficulties in providing students with textbooks within a fixed time limit. We are counting on the fact that, within the shortest time possible, this problem too will be solved.

The participants of the 16th plenum also considered the matters--so important from the social point of view--such as the functioning of higher educational establishments and the access to higher schools for peasant and working class youth. In accordance with the results of consultations--departing from the system of preference points--the range of help given to youth approaching entrance examinations from the working class and peasantry has been significantly broadened. Actions have also been undertaken with a view to raising the teaching level in the countryside and in small localities.

On the other hand, in accordance with postulates moved by working class milieux, work has been undertaken with a view to ensuring a socialist character to higher education. An expression of this is the amendment of the law on higher education, to the grades of academic titles, and the laws on the office of the minister of science and higher education. A consequence of the amendment is the reactivation of the social councils of higher schools appointed by the voivodship national councils; councils set up on the strength of the decision of the Council of State will be a means of control over the effectiveness of the higher schools' work. Within the scope of their activity there will be, first and foremost, the undertaking of actions aimed at organizing help for higher education schools in the socialist upbringing of youth, and discharging social control over the expending of means at their disposal.

Esteemed Comrades. Let us now move to successive socioeconomic problems, which we took up at the 16th Central Committee Plenum in the resolution of participants of this plenum. The voivodship committees report a significant improvement in the situation in the sphere of rationalization and inventiveness. The number of proposals is growing; there are fewer complaints about legal regularization; an increasingly better climate for the rationalists and inventors in work places is being created. I will present an example: in Tarnobrzeg Voivodship there are over 500 rationalists, each of whom has brought about savings over and above 21 million for the national economy. Among them is Comrade Stanislaw Moskal, foreman from the Stalowa Wola steelworks; Comrade Franciszek Regisz a metalworker from the Dezamet metalworks in Nowa Dabia; among the Krakow rationalists a worthy example is Comrade Kazimierz Tysz, a metalworker from the Lenin Steelworks, who in the course of his professional work presented 278 invention and rationalization projects. One can find considerably more examples like this, and one would want there to be as many of them as possible, especially as the approaching 5 years will be a very demanding test in the sphere of the widely conceived management of resources and inventiveness.

At the 16th Central Committee Plenum, problems concerning work ethics were also widely examined. The discipline and organization of work; the economizing and quality of production; rationalization and inventiveness; incentive wage schemes and work competition are matters whose need to be introduced was accepted by members of the Central Committee and invited workers during the debates of the 16th Central Committee Plenum.

Two-thirds of the material presented, in fact, concerns these matters. It is very clearly visible how different are the assessments, and how much there is still to be done in this regard. In some workplaces, incentive schemes have influenced the actual application of the principle, such as the work is, so then is the pay. This is not so in other workplaces.

For example, in the evaluation of the executive of the Wroclaw Voivodship Committee it is stated that, despite specific guidelines concerning the introduction of a new wage system, they do not mirror the principle of better renumberation for more productive work. On the whole the principle of a rise in wages in varying degrees for particular working groups is being applied. The principle of work assessment is not being implemented; therefore, if that is how things stand, then these are not motivating systems--this means that in these enterprises reform has been halted; it functions in the realm of assumptions and not in the real state of affairs.

Some of the committees report on the improvement in the quality of production; others cannot do so. In some enterprises the employment structure has been improved; in others it hasn't. In this way we see that which we have discussed so often: the true reserves of our socioeconomic activity. Something is being done all the time--and all the time some things are left behind, can't keep up and, therefore, put a break on progress.

Let us also add: The government will not come to these enterprises in order to govern them. That is not why we brought about the reform, that is not why enterprises were given independence.

From an analysis of the information collected, it appears that the difficulties with which we struggle often have very little to do with system solutions. Next to (?good) examples of legal regulations, a far more important role is played by man, his attitude to work, his authentic involvement, his desire to overcome stereotypes, bad habits and customs linked to the way work is being done. This is an important task for trade unions and workers' self-managements.

Trade unions active in enterprises comprise a fundamental platform for the socio-professional integration of workers' groups. Today, the majority of working people belong to trade unions. It is, however, an important matter that we should not fall into a state of self-satisfaction. We must recognize the need for broadening the programmatic activity of trade unions organizations. We are counting on the fact that next to the defense of interests and the implementation of the justified expectations of the working people, the trade unions will more efficiently influence the production processes. In order to be able to share out more, as has been mentioned in Comrade Wozniak's speech, one must produce more. That is how each manager must think and that is how each manager must act.

Workers' self-management are active in almost 90 workplaces. They constitute one of the basic forms of socialist democracy, an important link in the management system.

This self-management is an inseparable link of our economic reform, and the result of decentralization. We stress this one more time: such should be the road, both to the greater socialization of production processes, management of resources and direction, as also to the improvement of all indicators of the activity of enterprises. We know, however, that it is so in most work places, but it should be so in all of them. The working class as the manager of resources must be the sentry of intelligent and economic management of resources; rational employment and remuneration; the productivity and quality of production. The proverbial trash is not worthy of the traditions of the working class; it is a growth which must, which ought to be cut out as quickly as possible. I would like to end this thought with a statement: functioning within the structures of the socialist democracy, the working class has guaranteed rights and class duties--to be a manager and to decide.

Apart from the fundamental, productive function, work places also have a series of important, social tasks to implement, tasks which were discussed at the 16th Central Committee Plenum. We defined them at the time under the joint title of the necessity of developing and strengthening the small communities at workplaces. Today, we can say that the interest of party, trade union, worker's self-management organizations; the improvement of social welfare and cultural activity, have increased. Here the draft law about social and housing funds, which we discussed last month at one of the Politburo meeting, will be of significance. However, the fact that this type of activity is actually realized above all by large workplaces, should or ought to worry us. Such an assessment is confirmed by the controls of the Central Auditing Commission. We are not, however, a country exclusively of large workplaces, and everything should be done so that there would be less such information as that sent in by comrades from Pila--that outside of the group of larger workplaces, very little has been done thus far, that parcels for children on Saturday and Sunday excursions are the extent of the contacts of workers and their families with the workplace.

During the Central Committee's 16th Plenum and during the consultations, much space was devoted to the problems of the social policy of the state. This concerned, among other things, upbringing [word indistinct], the criteria for awarding pensions to the Class III disabled, taking advantage of medical certificates. Polemicizing about the theories of the excess of social benefits, the workers pointed out the all too frequent distortions, dishonesty and craftiness. We must admit to ourselves quite openly: We shall not automatically change the situation through legal regulations. In order for this to take place we must all stand guard over social justice. All of us, especially the workers. For after all, among us there are healthy Class III invalids. We live among healthy people who are on sick leave. We are working for their benefit and on their behalf. And this does not happen somewhere away from us. These unnatural practices, unworthy of a worker's sense of justice, should be consistently eliminated. We must also fight signs of indifference toward manifestations of social pathology.

To end this, of necessity, very shortened examination of the material made available, comrades, we must say that there are no tasks set by the

Central Committee's 16 Plenum which we have not undertaken. However, the level of their implementation is quite varied. But there are no such areas of action which have escaped our notice. What have we done as a result of the resolutions of the Central Committee's 16th Plenum? Without a doubt we have made another step in the strengthening and consolidating of the class and workers' course of our party. We have very many more workers in the Sejm. Workers are actively participating in people's councils, trade unions, in workers' self-managements. The workers are active in party echelons and the problem solving teams in committees. The workers also fully participate in decision-making processes.

There are still many matters which we have been unable to implement fully and everywhere. Far too often still, the worker in his own capacity, is a petitioner--running from one official to another. Far too often this 20, 30 percent of time mentioned by the ministry is being wasted through a bad organization of labor. One could also add to this, breaks for a cigarette, machines which are idling, finishing shifts half an hour too soon, and starting shifts half an hour late.

There are many such matters at work enterprises, offices and institutions which we know from our own experience at our work. Comrades, the 16th plenum is described as unprecedented in our history. I think that, therefore, the consistency and honesty in implementation of its decisions should also be of exceptional caliber. The achievements of this plenum are used in the prepared draft of the PZPR Program, which we shall approve at the 10th Party Congress. The Politburo therefore proposes to note the presented set of reports of the Central Committee and voivodship committees on the state of implementation of the tasks of the 16th Central Committee Plenum, and makes it incumbent on the party echelons and organizations--as well as the central and regional organs of the state administration and the managements of work enterprises--to carry out a detailed examination of the state of implementation of the tasks which they are responsible for, and to undertake consistent action so that they can be implemented in full. Thank you for your attention. [applause]

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CSO: 2600/180

POLITICS

POLAND

MIODOWICZ ADDRESSES 23D CC PLENUM

AU301201 Warsaw TRYBUNA LUDU in Polish 21-22 Dec 85 p 6

[Report on speech by Alfred Miodowicz, chairman of the National Trade Union Council, at the 20 December session of the 23d PZPR Central Committee Plenum in Warsaw]

[Text] I thank you for letting me speak in the party debate about our economy, because trade unions are especially interested in this issue. At the Poznan party economic meeting we said that the draft 1986-90 economic plan is colorless and that the people would find it difficult to accept it. We have to repeat this here. A plan can be implemented only if the work forces identify themselves with it. However, the 1986-90 plan is not socially attractive, and the Polish workers have no idea what improvements this plan will effect for them, why they have to tighten their belts to overcome the crisis, and, what is most important, what they have to do to earn more and to help the country to develop more rapidly.

Poor average wages produce poor average results. Such an approach will not trigger social militancy and the militancy of the best workers. But there can be no question of any considerable progress without such militancy. It is our view that, unfortunately, the plan is an expression of the philosophy of frustration. We will get used to the crisis and will learn to live with it. It is still time for the party to make a vigorous leap forward and to abandon passivity before the 10th Congress. It is still time to present a better vision of our fatherland in the congress program. There are many difficulties, but the party is able to propose how to overcome them.

We should encourage our countrymen to be militant and to tell all those who work honestly that they may hope to achieve good order, prosperity, and good prospects through their own work. What is the meaning of the fact that the national plan envisages that the housing problem will be solved in 20 or perhaps 26 [figures as published] years? This means a young man with military service who wants to set up a family will have to wait for an apartment until he is almost 50. Can we expect such a fellow to work his hands off? Can we expect him to be socially active and to support our policy? The fact is that we could solve the housing problem relatively quickly. Our industry is able to produce that which construction trade needs and our builders have a good

reputation in the world. But we also have inefficient structures, various legal barriers, and bad management, all of which are a brake on construction. We must abandon these barriers, because Poland simply cannot afford the waste reigning in the housing economy.

Price and incomes policy is another urgent issue, which is full of paradoxes. We are stingy toward pensioners and allow private shopkeepers to get rich. Polish trade unions are not for making wages equal for everyone. They support the government schemes to actively encourage work through wages, but what actually takes place has nothing to do with such schemes. Increases in food prices go hand in hand with wages increases.

Workers are primarily concerned for price increases and for ways to offset them by wage increases. This is their main concern, although price increases are not as numerous as to warrant this unceasing concern. Today the question of wages is still a question of the relationship between prices and wages and very seldom between productivity and wages.

I do not wish to allege that this is so everywhere, but it happens very often and produces nervousness and tension. I think we should stop those constant consultations about the prices of butter, sugar, and meat, because this does not encourage work, has a very bad impact on production quality, and triggers a wage race between branches of industry and enterprises. I think this is the source of the wage muddle and, consequently, a very bad employment situation. I propose that the party should allow the people to catch their breath and should let the planners and fiscal experts have time for intensive thinking. Let us freeze prices and wages until the 10th Congress and let us sort out this area in the meantime.

This will give us time to abandon what is harassing us. The government continues to demonstrate militancy in restoring order in the economy. For example, the work on the law on collective work contracts is an important activity, which is a reason for optimism. The point of this law is not to provide additional privileges for trade unions or to give something for nothing. The government regards the collective work contracts as important elements of employment and wage policy and of improvement in this policy. This is how trade unions view these contracts.

At the Poznan party economic meeting the trade unionists expressed their unequivocal support for the economic reform. The work forces attach considerable hopes to this reform. However, the economic instruments created by the reform are very much inadequate and not infrequently strike a false note. Mining companies have been set up and foundry companies are being planned. This is how enterprises protect themselves against the destructive system of taxation and other liabilities, a system that takes money away from the efficient plants to give it to poor plants. The fiscal system works in line with the principle that money should be found where it is easiest to find. Everything is being done to "grab" whatever can be grabbed from socialized enterprises and then from honest tradesmen.

The National Trade Union Council supports the proposal to draw up a thrift program, and as trade unions we want to contribute toward its implementation, because waste is the greatest curse of our people. Thrift, technological progress, structural changes, and organizational progress are the areas that the national economic plan should define.

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CSO: 2600/180

POLITICS

POLAND

MOKRZYSZCZAK SPEECH AT 23D PZPR CC PLENUM

LD221454 Warsaw Domestic Service in Polish 1125 GMT 21 Dec 85

[Speech by Wladzimierz Mokrzyszczak, member of the PZPR Central Committee Politburo at the 23d PZPR Central Committee Plenum in the PZPR Central Committee in Warsaw--recorded]

[Text] The PZPR is preparing for its 10th congress. The statutory period of this term of office of the central authorities and control bodies of our party expires in the middle of next year. The Central Committee at its 20th plenum considered it advisable to convene the 10th congress in the second quarter of 1986. The Politburo suggests that at today's plenary meeting the Central Committee adopts a resolution on the convening of the 10th congress, specifies main topics for its deliberations, appoints a Congress Commission, and approves the principles and course of its work. We should also define an organizational framework and goals and contents of the congress campaign. The party statute requires the adoption of a resolution on these matters at least 6 months before a congress.

Realizing the obligations of the 20th plenum of the Central Committee, the Politburo has undertaken work aimed at preparing programmatic and organizational assumptions for the 10th congress. We asked all executives of the voivodship committees for an opinion on this matter. Opinions put forward by comrades during recent information and consultative meetings were very useful for working out proposals concerning the organization of the congress campaign and the course of the 10th congress.

Comrades, the 10th congress of the PZPR will be an important event in life of the party, the nation and the socialist state. The whole of society rests its expectations on it. The 10th congress has to resolve a number of economic, social and political issues of the utmost importance of our country's future. The Politburo is of the opinion that the deliberations of the 10th congress should focus in particular on measuring the advance of the process of socialist construction in Poland, and on outlining its long-term goals. Their contents will be included in a long-term party program which has been prepared on the recommendation of the Ninth Extraordinary Congress.

The congress should appraise our achievements so far, and specify directions and methods to continue developing the strategy of socialist renewal, national accord and struggle as adopted by the ninth congress.

While making an appraisal of the sociopolitical and economic situation the congress should lay out tasks for improving economic reform, raising the quality of work and the living standard of society, for the development of the country in the next 5-year period, and also it should define the economic perspective until 1995.

The congress should also work out efficient methods for consolidating the party's leading role in the state and society, and for consolidating its workers' character and the Marxist-Leninist bases of its activity. It should specify conditions and methods for consolidation of the socialist Polish state, its ability to ensure a secure national existence, public order and the development of socialist democracy. An important task for the 10th congress will be the designation of foreign policy goals aimed at consolidating peace in the world and strengthening Poland's position in the international arena.

The Politburo suggests the convening of the 10th congress in the last 10 days of June 1986 in Warsaw. This date is in accordance with a statutory requirement for holding party congresses in every 5-year period. It also takes into account the political and social conditions in which the congress campaign and preparations for the congress will take place. The scope and character of tasks which faced by the 10th congress require suitable preparations and the conducting of the congress campaign.

The Politburo suggests that pre-congress meetings and conferences be held in the period between February and May of 1986. The subject of a pre-congress discussion will be the contents of a draft PZPR program and congress theses. Discussion of the draft PZPR program should enrich their knowledge of tasks and principles of building socialism in Poland, and on the party performing the leading role in the state and society. The congress theses which will concretize tasks included in the PZPR program for the next 5-year period should prompt the search for efficient and effective methods to achieve planned tasks for socioeconomic development.

We suggest that the pre-congress meetings of party organizations should be of an open nature. We count, in the pre-congress discussion, on the active participation of not just party members, but also of those who do not belong to any party. We appeal to all communities, to members of the allied parties, the ZSL and SD, to mass sociopolitical and vocational organizations, to workers, peasants, scientists and artists, to all working people for wide participation in the discussion on the future of our country.

Comrades, the pre-congress meetings and conference will also elect delegates to the conferences of party organizations on a high level and delegates to the 10th congress. The statute right of electing delegates to the congress is the right of pre-congress party conferences on the voivodship, works, higher educational establishment and armed forces level. In accordance with the statute, the Central Committee should define the norms of representation as far as the election of congress delegates is concerned. The

Politburo suggests that one congress delegate should represent 1,300 members and candidate members of the party. It also proposes that a right of direct election of the delegates to the 10th congress should be granted to works and higher educational establishment party organizations with a membership of more than 650 members and candidate members of the party. The elections of delegates ought to conform strictly with the principles defined in the rules governing the election of delegates, authorities and control organs of the PZPR, adopted by the National Conference of Delegates in March 1984.

The nature of tasks the 10th congress faces and the concern for an appropriate class composition of the future authorities and control organs of the party makes it incumbent on the whole of the party to ensure that front-ranking workers and peasants, as well as representatives of intelligentsia communities, outstanding party, state and social activists are among the delegates that have been elected. We should also remember that represented among the delegates should also be young party members who stand out because of their political activeness, their achievements at work and because of their involved and interested participation in public life. Works organizations which will elect delegates to the 10th congress should make sure that it is, above all, workers who hail directly from production [as heard] who should represent them at this most important party forum.

Esteemed comrades, programmatic and organizational preparation for the 10th congress demands the active and creative participation of all party members and candidates. In order to ensure this the Central Committee Politburo have come to the conclusion that there is a need to have general individual talks in the entire party. The talks will contribute towards better recognition of views and opinions held by party members and candidates, as regards political, social, and economic programs which should be solved in the documents of the 10th congress of the party.

During the talks we should seek a response to the questions by what methods and means we should stimulate initiatives and remove the brakes on the effective and efficient operation of work enterprises; how can party organizations more effectively fulfill the leading role in circles in which they operate where there are possibilities for developing the party ranks and how to raise the activity, fighting spirit, and ideological stance of every party member?

The subject of the talks should be the assessment of party members and candidates in performing statutory duties, and fulfillment of party tasks. We expect that the results of the talks will be [words indistinct] involvement, and sense of responsibility, and discipline of party members and candidates, an increase of political influence of party organizations in work enterprises and offices.

Esteemed comrades, the complexity, and importance for the state and people of problems which the 10th congress of our party has to resolve compels the Politburo to propose that the Central Committee make a decision that in pre-congress meetings and conferences we should concentrate on discussing and

preparing a stance concerning congress documents, and the election of candidates for the conference and the 10th congress [as heard].

For the post-congress period it is proposed that meetings, report-back and election conferences should be held to acquaint the entire party with the decisions of the 10th congress, and to prepare successful methods for the implementation of the congress resolutions in voivodships, towns, parish, or work enterprises.

Moreover, the post-congress meetings and the report-back and election conferences would assess the results of the activity of the party committees and organizations for the period spanning the last term of office, and would also elect the authorities and the monitoring bodies in party organizations.

The report-back and election conferences would debate within a team of delegates elected during pre-congress meetings and conferences. We propose that post-congress meetings and conferences take place from the voivodship level of primary and branch party organization level inclusive, in the period from October to December 1986. Such a procedure for conducting the pre-congress and the post-congress campaign will allow us to fulfill the ideological and political objectives put forward before the 10th congress, and will contribute to the achievement of full program and task uniformity for all the party links.

The whole of the preparatory work for the congress, in accordance with the statute, is being directed by the Central Committee and its Politburo. For the preparation of the draft documents to be sent for pre-congress discussions and to the congress (itself) the Central Committee is obliged to set up a Congress Commission. The Central Committee Politburo proposes that its composition should be made up of members and candidate members of the Central Committee, presidium members of the Central Review Commission and Central Party Control Commission, the first secretaries of voivodship committees who are not members of the central party authorities, a group of workers from the largest work enterprises, farmers and worthy party activists and experts. The Politburo also proposes that the Congress Commission should be chaired by the first secretary of our party's Central Committee, Comrade Wojciech Jaruzelski.

The Congress Commission would work within subject teams preparing drafts of reports and documents.

A report on the activity of the Central Audit Commission and the Central Party Control Commission (DTTK) for the duration of the term of office will be prepared by those commissions in their own capacity. All congress material and documents will be sent to party echelons and organizations and to the delegates to the 10th congress by the party's central committee.

Esteemed comrades! The congress campaign should bring a perceptible improvement in party work; increase the consistency of our activity; considerably mobilize all party cells, particularly Basic Party Organizations (POP);

and contribute to increasing the cohesion of party ranks, their ideological and political unity. It should strengthen the party and prepare it for a uniform execution of the 10th congress resolutions, for the broad inclusion of the whole of society in their implementation.

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CSO: 2600/180

POLITICS

POLAND

BRIEFS

OPZZ OPPOSED TO WORKING-TIME DECREE--The OPZZ [National Trade Union Accord] Executive Committee has submitted reservations to a draft Council of Ministers decree on working time at socialized enterprises and changes in some regulations on working time. In an adopted resolution, the OPZZ Executive Committee has emphasized that the decree should be in accord with the Labor Code, should guarantee employees' gains so far and not restrict rights which already exist. [Text] [Warsaw Domestic Service in Polish 0500 GMT 20 Dec 85 LD] /6662

'SOCIAL JUSTICE' COMPLAINTS INVESTIGATED--The presidium of the Central Party Control Commission has met to discuss the results of inspections carried out in 10 voivodships on the correctness of the examination of complaints and letters. The most numerous complaints concerned wide-ranging violations of social justice. The presidium obliged commissions at all levels to react in an even more efficient way to the irregularities revealed in the complaints and letters of working people, and in critical publications in the press and on radio and television. The debates were chaired by Jerzy Urbanski, chairman of the Central Party Control Commission. [Text] [Warsaw Television Service in Polish 1830 GMT 13 Dec 85 LD] /6662

CSO: 2600/180

SCIENCE AND TECHNOLOGY

GERMAN DEMOCRATIC REPUBLIC

DIGITAL PROCESSING OF RADAR SIGNALS DETAILED

East Berlin MILITAERTECHNIK in German No 4 1985 (signed to press 9 May 85)
pp 190-193

[Article by Lt Col J. Schuster, Lt Col R. Roemer]

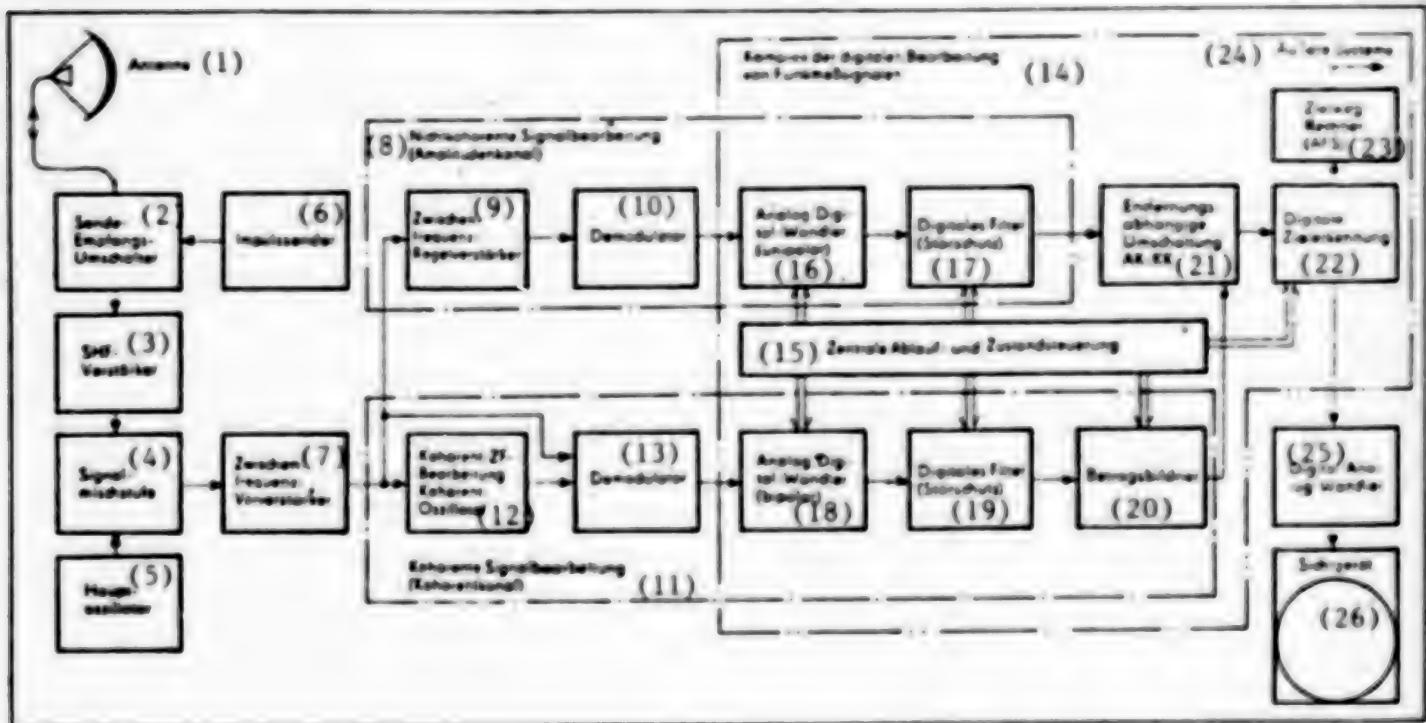
[Text] With the development of microelectronics, the use of digital signal processing has expanded to areas of application which were still reserved for analog technology only a few years ago. This includes the processing of radar signals. In this area, basic advantages are achieved through the use of such processes, such as a greater dynamic range, possibilities of more accurate adjustment of processing parameters to the transmission characteristics of the radar instrument and a high degree of stability in the parameters obtained.

As a matter of fact, many processes can now be performed for the first time since they would require too great an effort for syntonizing and tuning using analog technology. Some examples are digital recirculators, machine signal recognition and determination of coordinates or digital filter circuit processing to guard against radar interference.

Real advantages are the great accuracy and reproducibility of operations, the high reliability, the small size and weight as well as the decreased energy requirement. Furthermore, syntonizing and tuning work decreases with its use. When modern microprocessors are used, new modes of operation result. Equipment expenditure decreases even more.

1. Interaction of Analog and Digital Components in a Radar System

The arrangement of elements of digital processing of signals in the signal path is shown using a pulse radar system as an example. Within it, the signals are processed non-coherently (amplitude channel) as well as coherently (coherent channel). In each channel, the respective demodulator translates the intermediate frequency [IF] signals into the video range. The analog video pulses thus available enter the digital processing complex.



Illus. 1. Block Diagram of a Radar System With Digital Signal Processing Components

Key:

1. Antenna
2. Transmitter-receiver duplexer
3. SHF amplifier
4. Signal mixer
5. Master oscillator
6. Pulse transmitter
7. Intermediate frequency [IF] preamplifier
8. Noncoherent signal processing (amplitude channel)
9. IF variable gain amplifier
10. Demodulator
11. Coherent signal processing (coherent channel)
12. Coherent IF processing
Coherent oscillator
13. Demodulator
14. Complex for digital processing
of radar signals

15. Central process control and status control
16. Analog/digital converter (unipolar)
17. Digital filter (clutter suppression)
18. Analog/digital converter (bipolar)
19. Digital filter (clutter suppression)
20. (Betragsbildner)
21. Range dependent circuitry AK-KK [expansion unknown]
22. Digital target detection
23. Target trajectory computer (AFS) [expansion unknown]
24. External systems
25. Digital/analog converter
26. Visual display

Following passage through the digital processing complex, they are either reconverted into quasianalog signals in a digital to analog converter [DAC] and reproduced on a conventional visual display--with panoramic display for example--or relayed in digital form to evaluation and control computers of an automated guidance system.

Digital processing in the amplitude channel begins with conversion of the unipolar video signal in an analog to digital converter [ADC]. The analog signal is first made temporally discrete, with the duration of the starting pulse (T_i) being divided into n basic intervals. For each basic interval

$T_{discr.}$, the amplitude value of the analog signal is checked and translated into a digital data record equivalent (approximated) to the momentary value of the power. The number of digits in the data record is determined by the specific amplitude resolution.

Within the coherent channel however, a bipolar analog signal must be converted in the ADC using the same discrete time standard. The polarity data (sign digit) must not be lost in this process. The ADC therefore indicates the sign digit as a special digit in the data record. This converter must be capable of significant amplitude resolution in order to keep the processing loss low and to assure the effectiveness of the subsequent filter circuitry.

In both channels, a circuit generally referred to as a digital filter is included to produce necessary transmission characteristics for wanted signals and suppression characteristics for clutter. The so-called weighting coefficients needed in the processing are chosen so that, as much as possible, an optimal or almost optimal filtering of the signal of interest out of the mixture of wanted signal and interference is accomplished.

The basic configuration of a digital filter includes several memories and the arithmetic processor. Input signals, weighting coefficients and output signals are relayed to the memories. In the arithmetic processor, the signal pulse sequence is processed through multiplication, addition or subtraction with the weighting coefficient. Furthermore, working memories are available for storage of intermediate results and commands as well as central process control and status control.

After passing through the digital filter in the coherent channel, the signals have lost their dependency on the sign digit and may be relayed to the signal detection circuit via an electronic connection (which defines the processing range of the amplitude/coherent channel based on distance). This particular digital circuit detects the emergence of a wanted signal according to predetermined criteria. One such selection criterion is: The wanted signal appears for the process time (8 to 10 T_i) in the same (the k) basic interval.

It appears as a bundle of pulses the parameters of which are dependent on reflection and scanning values but which are precisely defined.

As a prerequisite for a high likelihood of target detection, a specific required number M of received target echoes out of the total Q of possible echoes (M out of Q) is postulated for the "target detected" statement.

The output signals can now be further processed as described above. However, the possibility also exists of ascertaining the azimuth of a detected target automatically on a digital basis. Such a circuit is drawn in in Illus. 1 with a broken line.

2. Components for Digital Processing

2.1. Analog to Digital Converter

The ADC must meet high standards in the processing of radar signals so that it does not diminish the efficiency of subsequent circuits. Its basic functions are dividing time into discrete units and subsequent quantization accompanied by encoding.

Dividing the analog signal u into time units (t) consists of checking momentary values at discrete points in time. The discrete intervals $T_{discr.}$ are used simultaneously as timing intervals in the real-time processing. After division into discrete units, the radar signal emerges as a pulse sequence (Illus. 3).

The quantization presents the conversion of the buffered discrete momentary values in a digital form. This is followed by encoding corresponding to stored binary codes resulting in a data record of n digits. The number of digits in the data record determines the accuracy attainable through the conversion (voltage resolution).

The lowest processable level (referred to as $u_{in \ min}$ [input minimum]) is the root-mean-square value of the background noise in the analog signal. A lower initial quantization gradient will result in no improved signal to noise ratio, but would only lead to a more accurate reflection of the noise in the digital range, and that is undesirable.

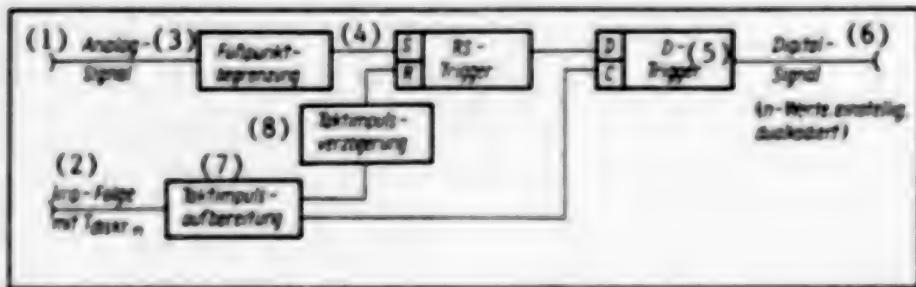
Many ADC circuits were developed. For the conversion of radar signals, only converter types with very high conversion frequencies are used (ADC's with parallel conversion). Such converters can be produced efficiently with microelectronic components in spite of the high number of circuits involved. Converter frequencies in the range between 100 and 200 MHz are now possible. The ADC is adjusted for data record lengths of from 6 to 10 bits. Possible circuits are described in detail in the specialized literature of the field.

A frequently occurring special case is quantization with output of a single digit data record. This is possible in non-coherent signal processing with signal to noise ratios greater than 2. The following is also true: If a

signal is present, the output is H; if no signal is present, the output is L. The transition level from L to H is set based on an established probability of a false alarm p_{false} at

$$u_{\text{schwell}} = \left(2 \cdot \ln \frac{1}{p_{\text{false}}} \right)^{1/2} \cdot \sigma_{\text{rausch}}$$

[u = analog signal, schwell = threshold, falsch = false, rausch = noise]
Illus. 2 shows an example.



Illus. 2. Block Diagram of an Analog to Digital Converter With the Output of Data Records of n Number of Digits

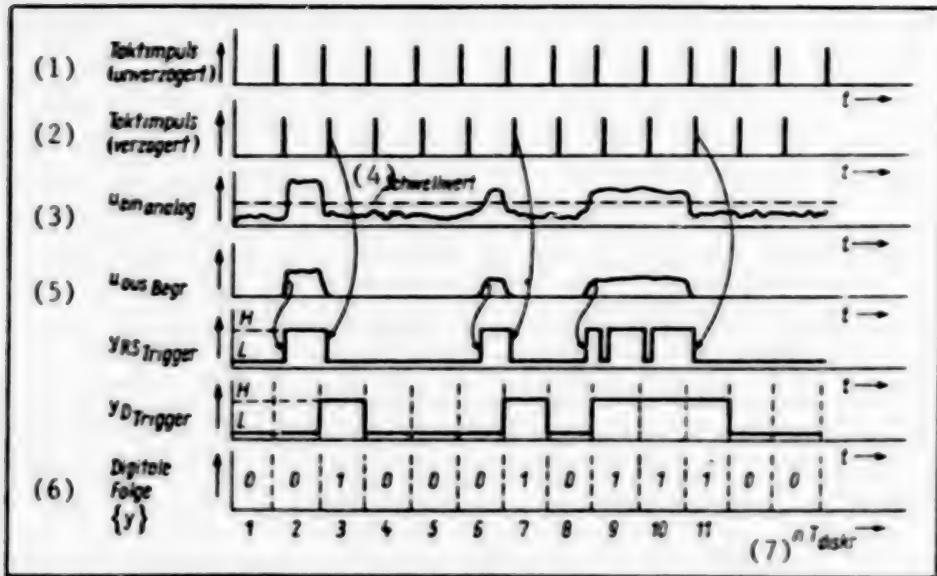
Key:

1. Analog signal	5. D trigger
2. Pulse sequence with $T_{\text{discr.}}$	6. Digital signal (n-record, encoded digitally in binary code)
3. Lower limit	7. Timing pulse preparation unit
4. RS [noise/signal] trigger	8. Timing pulse delay

Illus. 3 is an operational representation. The analog signal passes through a threshold stage, in which the lower limit is set (σ_{noise} setting). If a

voltage pulse which exceeds the level of noise appears at any time, it sets the following RS trigger. This relays H as the signal input to the following D trigger which can, however, only accept the H potential when a timing pulse is applied.

The timing pulse is prepared with the discrete time interval. This pulse is delayed slightly in the timing pulse preparation unit and resets the RS trigger after transfer of the data. If an L potential coincides with the arrival of the next timing pulse at the signal entrance to the D trigger, the D trigger is also reset for L output. The processing guarantees exact coordination of the H or L value to the temporal fundamental unit of the discrete time.



Illus. 3. Voltage Processing in the ADC Represented in Illus. 2

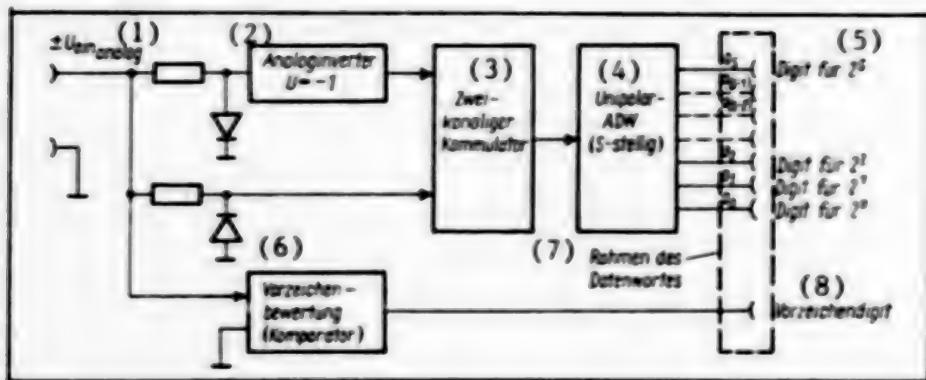
Key:

1. Timing pulse (not delayed)	4. Threshold
2. Timing pulse (delayed)	5. u_{out} limit
3. u_{in} analog	6. Digital sequence (y)
	7. $n T_{discr}$

Illus. 4 presents an example of an ADC with conversion of bipolar voltage. The polarity of the input voltage must appear as data in the sign digit of the data record. An analog signal with negative polarity can enter the commutator via the inverter with $u = -1$; a positive signal moves directly to the second entrance. The sign digit evaluation comparator generates the level H for any u_{in} [signal input] less than zero. That results in a 1 in the sign digit of

the data record. The commutator simultaneously implements the input of the inverted signal into the ADC. For positive input voltages, 0 appears as the sign digit, and noninverted input is relayed to the ADC.

There are currently numerous ADC's in the video frequency range. With the continuing evolution of microelectronics, calculation times will be further reduced, and real-time processing in the intermediate frequency range is expected soon.



Illus. 4. Block Diagram of a Bipolar ADC

Key:

1. U_{in} analog	6. Sign digit evaluation (comparator)
2. Analog inverter $U = -1$	7. Structure of the data record
3. Two channel commutator	8. Sign digit
4. Unipolar ADC (5-number of digits)	
5. Digit for	

2.2. Digital Filter for Suppression of Nonsynchronous Pulse Interference

For the most part such components are positioned in the non-coherent signal processing channel (amplitude channel).

The noise suppression concept makes use of the fact that signals of interest alter their timing relative to the reference impulse only insignificantly during the passage of at least 10 transmitted pulse intervals T_i .

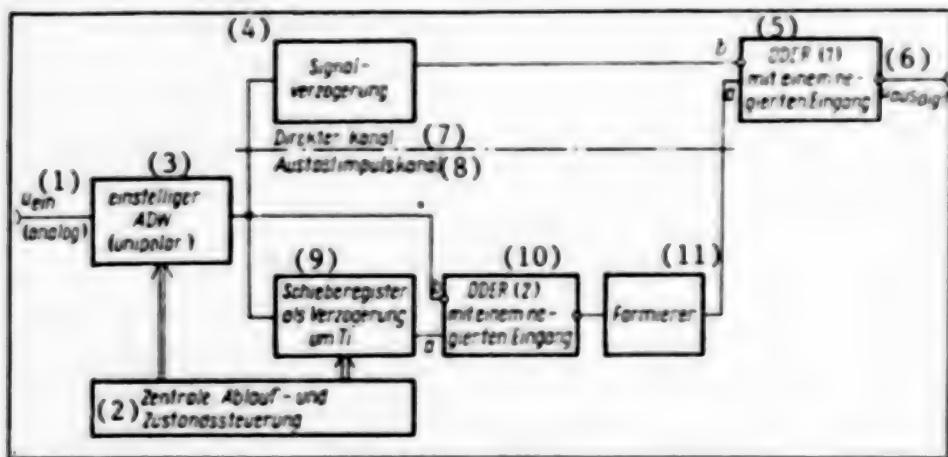
Nonsynchronous interference pulses, however, vary by at least one basic step in their timing relative to the transmitted pulse during two consecutive transmitted pulse intervals. With use of the criteria mentioned, the block diagram (Illus. 5) is a possible representation.

In this case, the analog signal of the amplitude channel demodulator is converted in a digital ADC. The division of time into discrete units results in a basic time units for a transmission pulse interval where

$T_{discr.} = T_i$ FuMG [radar set]. The sequence of digital data records thus corresponds to the data content of a transmission pulse interval.

The digital signal path branches. In the direct channel, the signal is delayed for a period of time equal to the total processing time in the

indirect channel. This is necessary in order to obtain exact simultaneity for arrival of the two input signals at the downstream OR circuit (No. 1).



Illus. 5. Greatly Simplified Block Diagram of a Digital Filter for Suppression of Nonsynchronous Interference

Key:

1. u_{in} (analog)	6. u_{out} (digital)
2. Central process control and status control	7. Direct channel
3. Digital ADC converter (unipolar)	8. Blanking channel
4. Signal delay	9. Shift register for delay by T_1
5. OR (1) with negated input	10. OR (2) with negated input
	11. (Formierer)

In the indirect channel, where the blanking impulses are generated, the digitalized signal is immediately fed directly to the negated input (b) of OR circuit (No. 2). It also is relayed to the signal input of a shift register. This acts as a buffer and its capacity corresponds to the number of stored basic intervals n. Thus, the data content is buffered for a transmission pulse interval in the form of ones (\bullet H) or zeros (\circ L).

Since the buffer is organized according to the first in--first out principle, in the k transmission pulse interval, the data for the same basic time unit, and also for the (k-1) transmission pulse interval, appear at the output of the shift register. They arrive at the second input (a) of the OR circuit (No. 2) with negated input. Its function is clarified by this switch availability table:

a	b	y	\bar{y}
L	L	H	L
L	H	L	H
<hr/>			
H	L	H	L
H	H	H	L

It is clear that for synchronous (wanted) pulse signals ($a = H$, $b = H$) for \bar{y} L-level appears. Thus no blanking pulse is generated. A nonsynchronous interference pulse for the current transmission pulse interval ($a = L$, $b = H$) results in $\bar{y} = H$; therefore a blanking pulse is generated.

After (Formierung), the blanking pulses arrive at the entry (a) of OR circuit (No. 1). The interaction of the direct and the indirect channel can again be further clarified by the switch availability table. When $a = H$ and $b = H$, $\bar{y} = L$. This means that when the indirect channel transmits a blanking pulse, the interference pulse is suppressed at the OR circuit (No. 1). For wanted signals $a = L$ remains, and the result is $\bar{y} = H$. Target echoes pass through the filter circuit without being affected.

2.3. Digital Filters for Suppression of Passive Interference Echoes

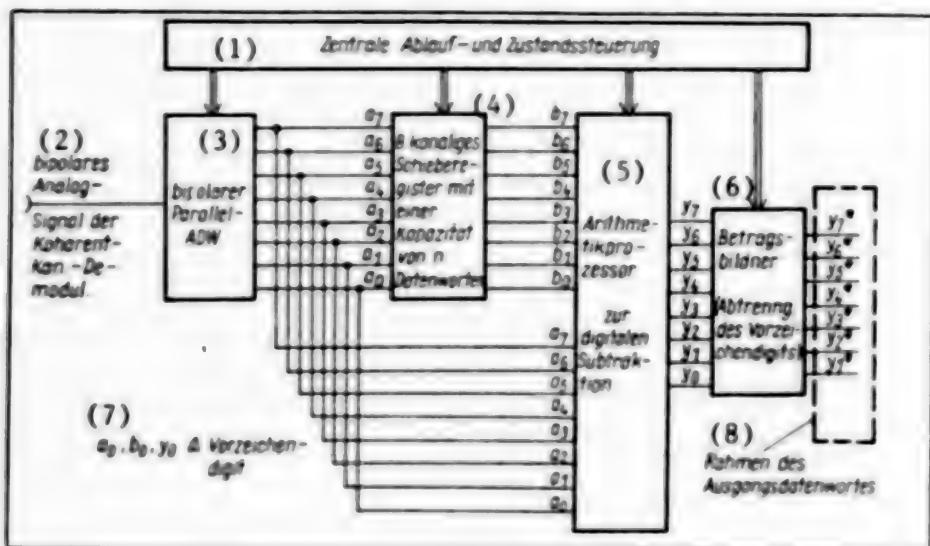
In the circuitry described here for detection of moving targets, the signals are processed coherently; and, thus, wanted signals and clutter signals are distinguished from each other. At the output of the coherent channel demodulator, a video signal is produced in which the voltage reading of the echo pulse of the flying object can vary between $+u_{\max}$ and $-u_{\max}$ from T_1 to T_1 . Pulse signals of blocked out passive clutter do not vary in amplitude and polarity from one T_1 to the next. In the evaluation of selection criteria, clutter suppression can be configured according to the block diagram (Illus. 6).

In the circuit, a subtraction is performed on the data content of two consecutive pulse intervals. For this, the output signal of the coherent channel demodulator is relayed to a bipolar ADC. This performs the division into discrete time intervals (n basic time units) and the conversion into binary encoded data records. In the chosen example: seven digits for coded amplitude values and one digit for the sign digit.

The data records transmitted from the ADC go, on the one hand, directly to the inlets $a_0 \dots a_7$ of the arithmetic processor and, on the other hand, to a buffer to be delayed by T_1 . The buffer must have an adequate number of channels to accommodate a record length of 8 bits and a capacity of n data records. An easily producible type of buffer is an 8-channel shift register (8 parallel processing individual registers which are synchronized) with n storage locations.

With it the data content of a transmission pulse interval can be stored in the form of data records. Since the buffer is organized according to the first in-first out principle, it takes in pulse by pulse the data record of the current transmission pulse interval ($T_1 q$); simultaneously, the corresponding data records of the preceding transmission pulse interval ($T_1 q-1$) appear at

the output. The shift pulses are generated by the central process control and status control, which also pulses the ADC.



Illus. 6. Greatly Simplified Block Diagram of a Digital Filter for Suppression of Echoes From Passive Clutter

Key:

- 1. Central process control and status control
- 2. Bipolar analog signal from the coherent channel demodulator
- 3. Bipolar parallel ADC
- 4. 8-channel shift register with a capacity of n data records
- 5. Arithmetic processor for digital subtraction
- 6. (Betragssbildner) (removal of the sign digit)
- 7. Sign digit
- 8. Structure of the output data record

The delayed signals are now available at the data inputs $b_0 \dots b_7$ of the arithmetic processor. The processor is likewise timed and performs the subtraction for each respective basic interval. The subtraction of the data records for a wanted signal (flying target) gives $y_{\text{wanted}}(T_1) = 0$; and for passive clutter $y_{\text{clutter}}(T_1) = 0$.

Such a circuit performs very efficient clutter suppression, which is all the better the more precise the coherent processing and the AD conversion become. Standard values for the suppression factor which can be achieved are from 15 to 20 dB [expansion unknown] for a one-step subtraction.

The use of digital filters, which operate according to the principle of discrete Fourier transformations, of course, involves more calculation expense but is considerably better and more universal. In the future, they will handle most of the suppression of passive interference. But before that happens, extremely fast microprocessors must be developed.

2.4. Digital Processing for Signal Detection

Such circuits electronically imitate the function of the human eye in distinguishing targets from the background of noise and clutter. Optical target detection means that, through sweeping the object, a "bundle" of target echoes which stand out on the screen against the background of interference will be obtained via the antenna diagram. Thus target detection is the integration of the interrelated target echoes within a bundle of echoes. The persistence and irradiation effects of the CRT phosphor further enhance target detection.

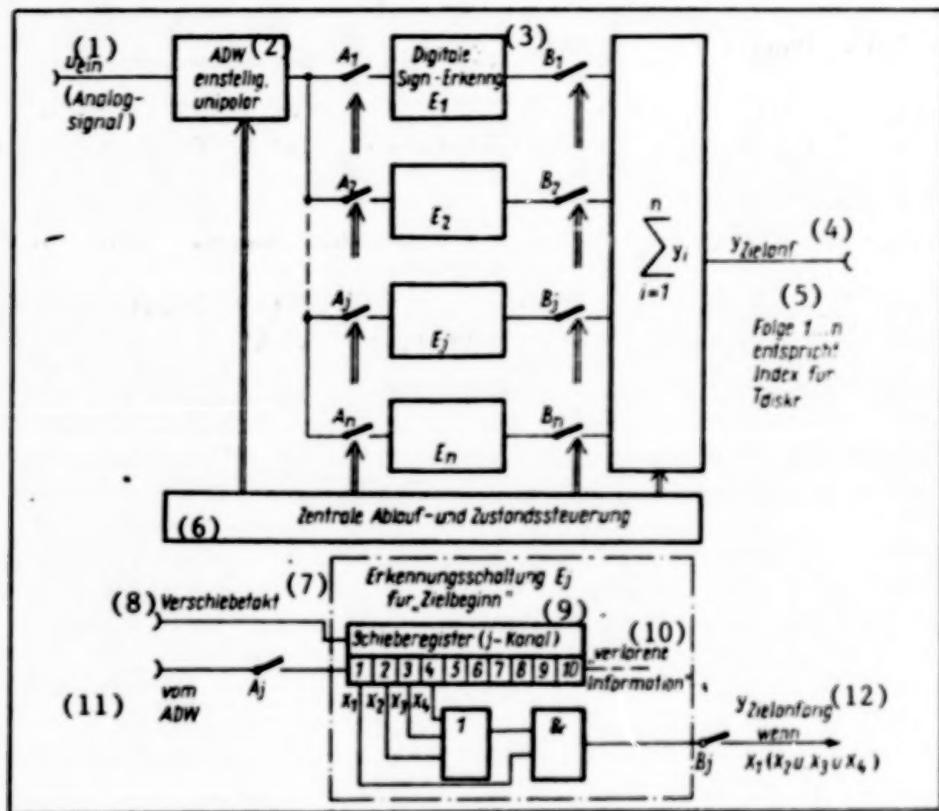
Digital target detection must be designed according to the integration process. For selected basic units corresponding to certain range rings in surveillance radar operation, the presence of target echoes is checked for in several transmission pulse intervals. (Search for pulse bundles).

A signal detection circuit for a radar system in surveillance mode may be configured according to Illus. 7.

The sequence of digital data records, which are already available digitalized through the commutator for the amplitude/coherent channels and filtered, arrives in parallel to the input switches $A_1 \dots A_n$. These connect the detection circuits $E_1 \dots E_n$ physically (therefore temporally also) one after the other into the signal path. Their output signals are relayed via switches $B_1 \dots B_n$ to the summing integrator. Thus, a resultant signal is reproduced which can be fed to an evaluation computer. The switches are supplied by the central process and status control with corresponding timing pulses. The fundamental component of digital target detection in the case under consideration is a shift register with a buffer capacity corresponding to the number of pulses anticipated in the bundle of echo pulses. Shifting of the data to the right lasts a transmission pulse interval in each case.

The data record of the j basic unit reaches the detection circuit. During scanning of the area in the j range ring, with the first reflection from a target object, a 1 is entered in the first memory cell of the detection register. If the second pulse of the bundle appears, it is entered in the first cell, after the 1 which was previously there is shifted one place to the right. In a best case example, therefore, after passage of $10 T_i$ with a loading of 10 pulses and a register capacity of 10 places, all memory locations are occupied by 1's. It is already totally sufficient if target acquisition is based on the condition that the parallel output of the first 4 register locations (x_1 to x_4) satisfies the selection criteria of 2 out of 4. During continuing processing, y_{target} will be stored for this basic unit until a set number of 0's follow each other in the detection register. Then the target end determination is made, and the target data for continued processing is stopped.

The effort described is essential for each basic unit. It is, however, manageable through the use of microelectronics.



Illus. 7. Greatly Simplified Block Diagram of a Target Detection Circuit

Key:

1. u_{in} (analog signal)	7. Detection circuit E_j for target acquisition
2. ADC, digital unipolar	8. Shift timing pulse
3. Digital signal detection	9. Shift register (j -channel)
4. Target acquisition	10. "Lost data"
5. Sequence $1 \dots n$ corresponds to index for T_{discr}	11. From ADC
6. Central process and status control	12. Target acquisition when

The various approaches above are only intended to give a glimpse into the continuously increasing potentials for processing of radar signals. Detailed descriptions would have exceeded the framework of the article. Therefore, it is necessary to refer the reader to publications in the technical literature of the field and to the sources indicated.

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